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SOVIET UNION ECONOMIC AFFAIRS

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SELECTED MATERIAL ON STATE ACCEPTANCE OF PRODUCTION

Improving Quality of Output

Kiev RABOCHAYA GAZETA in Russian 23 Jan 87 p 2

[Article by V. Kreshchuk, correspondent for RABOCHAYA GAZETA: "Where Delicately..."]

[Text] Odessa--Workers attached to the Odessa Mikron Production Association furnish answers to the "RG" questionnaire.

1. How do you evaluate the technical level of your product.
2. Have conditions been created at the enterprise for the production of high quality products? What still remains to be done?
3. Your complaints regarding the suppliers: how can interaction among allied workers be improved?

A Defective Part and a Letter To Allied Workers -- by V. Arvat, brigade leader of an all-round cost accounting brigade in a department for screw pairs

1. Sailors refer to the chief ship of their flotilla as the flagship. And I believe that our association can be considered the flagship for domestic machine-tool construction. The leading enterprise, the Odessa Mikron Production Association, a plant for precision machines, is comparatively young. It was 18 years ago that it shipped its initial products to customers -- five honing machines. And subsequently we mastered precision equipment, we created the first Soviet processing centers with digital program control and the first modules -- processing centers equipped with robot manipulators --and we commenced the first production in the country of flexible production systems.

2. Our work is delicate: thousands of parts of millimeters and we deal in microns. Thus, we consider it to be a special art. I recall how on one occasion a question was asked with regard to how the name Levshi was placed on tacks:

"Where is the special instrument that you had to use to accomplish this?"

And the reply was: "We are poor people and our poverty does not allow us to have such an instrument. We simply used our eyes."

And when we receive new machines for our production operations, we automatically think that the USSR Ministry of the Machine-Tool and Tool Building Industry is aware that we only use our eyes. Equipment from the Moscow Plant for Coordinate-Boring Machines is installed for the purpose of carrying out finishing operations. It is on this equipment that we begin processing screws more than one and a half meters in length and we are unable to ensure the required accuracy in thread-grinding: it is suitable for preliminary processing but not for finishing work.

This year we received four machines from the Imeni Kosior Plant of the Kharkov Machine-Tool Construction Association. And what happened? We placed a grinding chuck on them and it seemed as though the part began pulsating. And thus instead of grinding the part, the limiter broke down.

3. I am disturbed most of all by the quality of the billets used for the screw pairs, which are supplied by the Ustinovskiy Steel-Rolling Plant. When you begin processing them, you often notice that the hardness of the metal varies in different parts of the same billet. And suddenly the screw begins to heat up strongly during grinding. At such times, you seek help from the heat specialists and these individuals shrug their shoulders in a hopeless gesture: they maintain that the fault is not their but rather it rests with the faulty billets.

What remains to be done here? A part is defective and we write a reproachful letter to our allied workers. Yes, only it seems to me that it would be better if authority was employed in such instances.

Tolerances and Clearances -- by V. Marchenko, chief of state acceptance.

1. In terms of its technical level, the output of the Mikron Production Association is in keeping with the best international standards. And thus it would be offensive for a complaint to be registered against it.

In October of last year, following an experimental check carried out by state acceptance workers, it turned out that 27 percent of the overall volume of goods produced was returned for reworking and in November this indicator increased by 4 percent. Certainly, it is wrong when products which have just undergone finishing operations are returned for further work.

2. Yet the working conditions within the association and also those of allied workers still do not conform to the requirements of the times. Hence the need for the reworking of defective products. At the present time, the state acceptance workers, together with the association's specialists, are introducing the changes needed in the technological process for producing screw pairs, such that the thermal and mechanical processing regimes will guarantee high quality screws. Earlier, it was a case of the heat specialists selecting the required processing regime by eye. Today production is equipped with instruments which make it possible to maintain reliable control over the thermal processes.

Controlled cutting regimes are being introduced into operations for the machine tool makers and this will also make it possible in the final analysis to guarantee high quality mechanical processing. In addition, we must solve still another very important problem: to ensure the availability of constant-heat production conditions in those areas where needed. Let us take the tool makers. Indeed, they work with tolerances of 1-2 microns. And such accuracy can be achieved only with a surrounding temperature of 18-20 degrees.

A decision was also made to examine the technology for obtaining centered openings, which serve as the base for finishing operations. Towards this end, it was necessary to organize the production of high quality drills and countersinks within the association.

Special complexes using laser systems, micro-computers and automated measurements must raise sharply the productivity and quality control for screw pairs. They are being supplied to the Mikron Association by the Moscow Scientific Production Association ENIIMS [eksperimentalnyy nauchno-issledovatel'skiy institut metallorazhreshchikh stankov; Experimental Scientific-Research Institute of Metal-Cutting Machines]. However, the introduction of this innovation is being delayed, since the Moscow workers have not completed the certification of this equipment.

3. We are waiting for allied workers to supply completion products not only in accordance with a definite schedule but primarily of a particular quality. The work with inductosins -- linear and circular measurement systems -- is proceeding very poorly. They are being supplied by the Leningrad Electromechanical Plant. As a rule, 30 percent of the inductosins supplied during a month's time are of 3d class accuracy and the remainder -- 4th class. And this means that it is very difficult for the association to ensure the production of products of high and especially high classes of accuracy.

The electric drives which are being supplied to us from Aleksandriya are very unreliable: the electronic systems are poor and the adjustment of the parameters is unstable. We often find metal shavings and dirt inside the electric motors being supplied to us from Prokofyevsk. They are usually poorly balanced. Not more than 70 percent of them can be made available for assembly work

We sent letters to our allied workers in which we requested them to consider our comments. We sent our specialists to them to provide assistance, in the event of need, in adjusting certain technological processes.

Rating Plate for a Stamp -- by G. Feofanov, general director of the association.

1. The situation is truly complicated. It is not enough that we devote thought only to our own problems. Compared to 10 years ago when one half of the machines which we produced were of a raised class of accuracy and the other half -- high class -- today all of our products are of a high class of accuracy and 98 percent of the machines are equipped with ChPU [digital program control]. And each of our ChPU machines is a processing center. In

terms of productivity, it is the equal of 4-5 conventional units and it carries out 30-50 different operations.

2. The production of such products required the renovation and technical re-equipping of production. Thus, jointly with state acceptance workers, we are continually searching for reserves: we are improving the technical condition of the working positions and we are improving and drawing closer to the optimum regimes for the mechanical and thermal processing of parts.

We are presently experiencing an acute shortage of measurement instruments and devices. The ministry has allocated 50,000 rubles for acquiring them. We are making a portion of the instruments ourselves. We produced samples of rough metal on an urgent basis. Whereas earlier the stamps and press forms were turned over to a warehouse following production, today they are being tested on special stands. Rating plates are being affixed to them.

No longer is it possible to enumerate all of the trends for raising the quality of products, such that they will conform to the international level. There was a time when 3-4 years would elapse between the planning of a new model and the assignment of it to series production, that is, the idea would become obsolete and the innovation would not always produce the desired effect. Thus an experimental-research department was created and a method was introduced for carrying out a leading experiment in which separate ideas are checked out in a problem laboratory long before the plan is realized in metal. And this makes it possible to reduce the normative period for the mastering of new equipment.

3. The need for raising the quality of products at times forces us to undertake decisive measures: we sever contractual relationships with those considered to be unreliable. Thus the services of the Cheboksar Electrical Equipment Plant were rejected; it supplied unreliable ChPU systems. We began obtaining them from the Tomsk Kontur Production Association. But a telegram has just been received from there stating that our order cannot be filled completely owing to difficulties caused by converting over to state acceptance. What can we say? It is obvious that our allied workers are unable to handle their available resources in a thrifty manner or restore order to production.

It seems to me that the introduction of state acceptance cannot be examined apart from the complex of measures being implemented at the present time for improving planning and administration, converting associations, enterprises and branches over to the principles of complete cost accounting, self-financing and self-support and raising the independence and responsibility of enterprises and strengthening the stimulating role played by wages. And it is time for the planning organs to display concern for ensuring that the chief principle of cost accounting -- use what is earned for consumption -- be associated directly with the carrying out of a delivery agreement. We will then be firmly assured that our prospects will not suffer from any sluggishness of inaction.

Reporter's Comments:

The introduction of state acceptance once again indicates that the creation of equipment in keeping with the best world standards must be accompanied by an appropriate technology, labor organization and skilled personnel at those enterprises considered to be elements of the country's unified national economic complex. If this is not the case, then a carelessly manufactured or assembled unit can negate the efforts of many allied workers. The processing centers, robotized technological complexes and flexible production systems being produced by the Mikron Association are intended for use in tense double and triple shift regimes, which require highly reliable equipment. And in distributing the orders for completion components, USSR Gosplan must display exactingness, high principles and concern for ensuring that the partners conform to one another in terms of the technical level.

True, the Mikron Association is failing to meet the requirements of both distant and nearby allied workers. Poor castings are being supplied by the Odessa Tsentrolit and a number of other local enterprises. It is time for the Odessa Municipal Party Committee to assist the engineering services of enterprises in improving their technology for producing castings that are used in the manufacture of precision equipment.

Much remains to be done in connection with perfecting production and improving the control service within the Mikron Association. This process involves interaction with state acceptance in improving quality control and the reliability of the products.

State Acceptance Problems, Decisions

Kiev RABOCHAYA GAZETA in Russian 29 Jan 87 p 3

[Article by N. Andrusenko: "GOST Sanctions Defects"]

[Text] Kiev--Workers attached to the Kiev "Ukraina" Production Sewing Association furnish answers to the RG Questionnaire.

1. How do you evaluate the technical level of your products?
2. Have conditions for the production of high quality products been created at the enterprise? What still remains to be done?
3. Your complaints regarding the suppliers: how can interaction among allied workers be improved?

The Price of Success -- by T.V. Myslyvets, deputy chief engineer for the association.

1. Our products -- women's raincoats and overcoats, men's short coats and jackets and school uniforms -- do not remain on the store counters very long. And we can only be pleased with this. It bears mentioning that the majority of models for which there is a high demand are produced by us using our own resources.

The "Ukraina" Association is a basic enterprise in matters concerned with the technology for and the design of clothing and thus we are often visited from colleagues from other republics who come to acquire experience. We devote a great amount of attention to matters concerned with improving the external appearance of the goods through the use of finishing equipment. Towards this end, we strive to introduce light mechanization equipment into operations on an extensive scale. We are producing 102 models with an index of "N." This constitutes 43 percent of our overall production volume. One of our priority tasks consists of changing and expanding the assortment and thus we change 65 percent of our products each year.

2. For the most part, conditions have been created at the enterprise for the production of high quality products. However, there are problems which we are obligated to solve on an urgent basis. Here I have in mind mainly our personnel shortage and the technical re-equipping of production. They are mutually related.

Let us take the leading enterprise. Thirty five percent of the equipment here is obsolete. Understandably, it is difficult to produce modern and fashionable products using antiquated machines. And if one takes into account the fact that we are literally being strangled by a personnel shortage, then the price for our success becomes abundantly clear. Today we are receiving assistance from experienced seamstresses who possess many years of operational experience. But who will take their places tomorrow if no young specialists are being trained today? Thus the problem of increasing our man-power is a very important one for us. It is hoped that the ministry will show a good grasp of this problem in solving it.

3. Many complaints are being registered against the suppliers. Last year alone, claims amounting to almost 50,000 rubles were presented. A considerable portion of them involved the workers at the Odessa Cloth Factory. Our inability to reach an agreement with them was vexing indeed. Nor are we always satisfied with the quality of the products being produced at the Leningrad Combine for Fine and Technical Cloth imeni Telman, the Darnitskiy Silk Combine or the Knitted Goods Association imeni R. Lyuksemburg.

Earlier we conducted business meetings involving participation by allied workers at the enterprise. The return from such meetings was considerable. Today they seem to have been forgotten and this is wrong. The time is at hand finally for developing a single GOST [state standard] denominator for sewing products and textile materials. The knitted goods workers, for example, are tolerating a deviation of 10 percent in the design for artificial fur. But who will purchase a fur coat with a distorted pattern? According to our understanding, this is also wasted goods. And yet we are being supplied with such raw material.

There Must Be No Compromises -- by V.P. Marshal, leader of a state acceptance organ.

1. If the sewing products are evaluated according to three criteria: conformity to modern style, design execution and quality of manufacture, then it can be said that the "Ukraina" Association has received no product

complaints based upon the first two indicators. This cannot be said concerning the quality of manufacture; here there are many shortcomings. This was revealed during the initial days of work by state acceptance. Only 73.5 percent of the products which we inspected were accepted upon initial presentation. The remaining 25 percent was returned for reworking.

We are offended most by the fact that our observations are not understood correctly in the collective. We are often looked upon as individuals who are inhibiting plan fulfillment. We truly have never allowed the plan to be carried out at any cost. It is our understanding that there can be no compromises during the preparatory stage for state acceptance.

Today the picture is somewhat different. We are already returning 13 percent of the products for reworking. And although this figure is two times less than it was one month ago, it is still too early to rest contented.

2. Life has proven that the road leading to high quality products is shorter and more reliable in those areas where close business-like and high principled relationships have developed between the production workers and the state acceptance workers. For example, honest collaboration developed between ourselves and a collective of a subunit of the association -- the Oktyabr Factory. Considerable preparatory work was carried out in all departments, shops and brigades in connection with converting the enterprise over to state acceptance. The director of the enterprise, Ye.A. Bozhok, deserves a great amount of credit in this regard.

The situation is worse at the other enterprises, particularly at the leading enterprise. Nevertheless, there is a good basis today for discussing some striking changes that have taken place in all subunits of the association in the creation of reliable conditions for the production of high quality products.

I share the concern of the leaders of the enterprise regarding the personnel problem. But the shortage here is not limited to seamstresses. Owing to a lack of highly skilled mechanic-trouble shooters, there have been instances of low quality operation of sewing equipment. It is our opinion that the enterprise must devote more attention to developing the production of light types of mechanized equipment.

3. Under the conditions imposed by state acceptance, we have encountered questions which require the operational restructuring not only of enterprises of the sewing branch but also of other branches of the national economy. This applies first of all to allied workers engaged in the production of fabric, accessories and equipment for the sewing industry workers.

Deviations tolerated by the GOST's for the textile industry are also preventing the production of high quality sewing products. One does not need a rich imagination in order to visualize how a coat will look if the wool fabric is doubled up at the top with a lining; there will be a shrinkage of 2 percent.

The time is at hand for introducing consistent inter-branch standards.

But they are not being introduced into operations. Why not? They are not being introduced mainly because, as emphasized during the Plenum of the CPSU Central Committee, the ministries and departments concerned are tolerating red tape and irresponsibility. All attempts are being paralyzed by old statutes and instructions, by sluggish carrying out of work and by failure to follow the established rules. Indeed, under present conditions such methods for controlling and solving problems are unacceptable.

Defective Products Against One's Will -- by N.Ye. Miroshnichenko, seamstress-operator and holder of the orders of Lenin and "Badge of Honor."

1. We truly have realized achievements and yet if we value our factory mark we must state quite frankly and openly that we have neglected the problem of quality. I have in mind the so-called minor flaws and defects which at times a customer will not notice immediately. And indeed these must be eliminated.

I recall a visit I made to a store some time ago. A woman was being fitted for one of our coats. Everything was fine but for the fact that the lining was slightly stretched. The woman was distressed and yet I urged her to make the purchase. We later met at my home, where within a matter of several minutes I was able to correct the defect. Upon her departure, the woman appeared satisfied and I was left with a painful thought. How many of my colleagues would spend an extra two minutes or so in this same manner in order to ensure that a coat purchase was completely satisfactory?

2. Truly, this is not a minor matter -- an incorrectly attached button, an uneven hem or a pulled thread -- these are problems which we encounter quite often. However, I cannot state that these are all consciously committed defects.

There are many causes. For example, several years ago we sewed simple fashions and yet today we are confronted by many complicated finishing materials. And yet the norms remain the same as those employed for the old equipment. In short, work has become more difficult and it turns out now that even experienced seamstresses are unable to maintain the required rhythm and thus they make mistakes. Then there is also the matter of employing novices in carrying out this work.

We still have some serious complaints: the youth are not entering the factory and thus we lack sufficient man-power. All of this is quite true; in our brigade alone we lack eight workers. But tell me, what has been done at the enterprise in the interest of retaining personnel? There are no boarding houses and the working conditions are not in keeping with the modern requirements. There are also problems with regard to the availability of recreation rooms, food service and a place where one can change his or her clothes. If air conditioning is turned on, our teeth chatter and if it is turned off we break out in perspiration.

3. A tour of the departments at our enterprise will leave you convinced: the workers use the term "state acceptance" quite often. Yes, today each one of us is witnessing radical changes in some of the more generally accepted concepts and we are evaluating the results of our work in a self-critical manner. And one fact is very clear: regardless of how conscientiously we apply ourselves to our obligations, we will not be able to eliminate rush work or product defects so long as our allied workers continue to let us down. At the present time, the association's collective has informed its suppliers in writing that the enterprise has commenced operating under the system of state acceptance of products. We asked them to send us only high quality products. It is hoped that this will produce the desired results.

Reporter's Comments:

Only a short period of time has elapsed since state acceptance was introduced into operations at the Ukraina Production Sewing Association in Kiev. Relations between the new organ's workers and the leaders of the enterprise have been difficult. Especially in the beginning. It was as though they stood on opposite sides of a barrier. The sewing workers were more concerned with the fate of their plan than they were with the problems of product quality. At first, they even shipped four batches of goods containing defects to the trade with no thought being given to reworking the products or presenting them for state acceptance a second time. Such incidents are no longer occurring. The amount of defective products is negligible and such products are not allowed to pass beyond the gates of the enterprise. How was this achieved? In response to the newspaper's questionnaire, the association's workers tried to evaluate their accomplishments in an objective manner and they directed attention to some of the more urgent questions associated with defining the means for overcoming the difficulties involved.

The enterprise's collective must first of all concern itself with solving its personnel problems and the problems concerned with the technical re-equipping of production and it must improve working conditions in many sections. All possible measures must be undertaken to ensure that wages are strictly dependent upon the quality indicators for labor and a campaign must be launched not only against bungling workers but also against those who tolerate even the slightest defects.

A great amount of work remains to be carried out in this area. This is particularly true in view of the fact that up until now many sewing workers were convinced that minor defects were inevitable in production operations. We take exception to this belief. The production of low quality products cannot be justified.

Finally, the time is at hand for examining the existing obsolete GOST's [state standards] and for introducing inter-branch standards which will promote the production of only high quality products in both the textile and sewing industries. Who will do this? Certainly, work cannot proceed in the absence

of assistance from Gosstandart in raising the responsibility of allied workers and yet the principal work will have to be carried out by the light industry workers themselves. As is known, the standards are developed by the branch's specialists. The sewing workers, similar to textile workers, belong to the same ministry and thus where there is a desire to do so these problems can be resolved in an efficient manner. All possible measures must be undertaken to ensure that the products being supplied to store counters by light industry workers are not only fashionable and attractive but also of high quality and durable in nature.

Worsted Fabric Production

Tbilisi ZARYA VOSTOKA in Russian 5 Feb 87 p 2

[Article by Amiran Mgeladze, under rubric "State Acceptance: The Criterion Is the Quality of Output": "Between Profit and the Gross"; first paragraph is source introduction]

[Text] The Sovetskaya Gruzija Worsted Cloth Combine began 1986 under very difficult conditions. The remainders of finished output in excess of norm constituted approximately 46 million rubles, there were tremendous debts to the bank, an acute shortage of the combine's own working funds, and large personnel turnover. To cap off everything else, the bank, having lost its patience, stopped providing credit to the enterprise that was actually bankrupt.

That is how the year began. It seemed that there was no longer any way out, that the rescue measures had been exhausted, and that it was the combine's fate to sink even deeper. But it was not allowed to sink. A financial tugboat was put into action: payments of credit for the remainders of finished output were postponed until 1989, and it was reduced from 10 to 8 percent of payment. One good deed deserves another. Now, in order to cover the credit, the combine is obliged during a half-year to sell not only the planned volume of output, but also that which has been lying around unsold. For a total of 78.5 million rubles. It is very difficult to do that, but it is necessary.

The beginning has been laid. The year 1986 has already shown that the combine is capable of acting independently. The plan for production of commercial output was overfulfilled, the labor productivity rose, the expenditures per ruble of commercial output dropped, and remainders in excess of norm with a total value of several million rubles were sold. All these factors let themselves be known. The combine that had chronically operated at a loss began bringing in a profit. In 1986 it was 2 million rubles.

In September 1986 the state acceptance representatives at Sovetskaya Gruzija went through the entire combine, determining precisely where and for what reasons the disruptions in the quality of output were occurring. The state acceptance representatives attempted not only to point out things and make suggestions, but they themselves also sought the necessary technical

decisions. They "stumbled," for example, on the old primitive M-150 winding machine, on which twisted yarn was wound. People would shed tears, rather than work on that ruin. Should they ask for a new one? Of course they could do that. But the state acceptance representatives looked around and the decision came to them: they could adapt for that purpose the Czechoslovakian-make Autosuk winding machine, and squeeze out of more than it had produced up until that time -- during one shift they could wind single-ply yarn on it. In addition it was provided with special devices -- "usters," that prevented flaws in the twisted yarn from passing through, etc. And that is what they did. They also added another shift, increased the number of winder operators, and organized the operation.

The combine has only just begun to acquire a certain stability and you can see it rolling toward the "ninth wave" of full cost accounting and self-financing. And this is when it still had "on board" 38 million rubles worth of unsold output, when they do not know how they can stop up the next hole caused by the payment of a penalty sanction. There has been interference, but no panic is visible. The combine has managed to find the opportunity to get rid of the ballast that has been hampering its maneuverability and its dynamic actions. It has achieved an authorization to reduce the prices on the unsold articles on the basis of a preliminary contract with a purchaser. Of course, you lose a lot this way. But that must be considered against a larger amount of money. It doesn't make sense to harbor hopes that tomorrow, or very soon, everything that the warehouses and all the other poorly adapted areas have been stuffed with will suddenly be snatched up.

Bitter experience is reliable experience. Assimilating the new economic conditions and sensing the constant dependence upon the capricious winds of fashion, the people at the worsted cloth combine understand more and more clearly that cost accounting carries its own idea about usefulness and harm, about order and disorder, about good business practices and bad ones, and that it is a special monastery with special rules. The combine has not taken a course against the rules. Whereas in previous years it assigned at most 30-35 percent of its output, at the present time, properly urged on by the commercial service, it has assigned 90 percent.

The caprices of the oversaturated market dictate their rates of renovation. The combine is being oriented in an increasingly definite manner toward profit. The people here refused recently, for example, to produce a fabric that had been causing them losses -- quite recently that fabric had been very convenient to make, because it easily yielded abundant meters -- and they have been looking carefully at other items that are not profitable.

I had a conversation with the state acceptance representatives.

"How is the 'link-up' with the OTK [technical control department] proceeding?"

"In general, normally. They understand our tasks, and we understand theirs," state acceptance representative Givi Gelashvili says. "True," Gelashvili says with a smile, "it is not without its zigs and zags. When face to face with the terrible state acceptance, certain OTK workers tightened up the nuts so

much that we ourselves had to ease up on them until they were in the necessary condition."

It turned out that the OTK checkers had begun allowing second-grade fabric to pass through, and then the state acceptance representatives, after comparing it with the very same standards, would change it to first-grade. Yes, that really happens.

"We do not require anything extra," David Tsinadze, deputy head of the combine's state acceptance explains, "but we will not back down from what we know is right."

There has already been confirmation of these words. The combine produces pure-wool fabric, item No. 5210, which is an item that is very important for the enterprise: the fabric sells out very quickly. But the state acceptance representatives check the specifications and they see that the blend is supposed to include a high-quality wool -- cross-bred No. 58 -- but the wool that is being used is that which happens to be at the warehouse at the moment -- wool No. 48. Even to the uninitiated it is obvious that this is a substantial difference. It was necessary to stop the production. Needless to say, there were repercussions. This major step was much too unusual and too unfamiliar for the recent shop chiefs and OTK checkers. But despite the repercussions, they acted properly: they stopped the production of fabric No. 5210.

That which has been done at the combine during a short period of time has been very impressive. No, there is not yet any complete assurance, but only hopes. Actually the enterprise needs new technical re-equipping. One-third of the equipment requires replacement. And this is after a fundamental remodeling, after which about 150 assemblies and looms have already been replaced. Essentially speaking, right now the technological cycle at the combine reminds a person of a road where stretches of first-rate highway alternate with a rut-filled country road that leads eventually to a tricky mountain path.

"The most important thing is to prevent defective output in weaving production," Zaira Kirkitadze, deputy chief of the combine's OTK, says, sharing her concerns. "For that reason we do not send things back to be reworked. We only send them to the reject heap. This is very, very difficult. At any moment a not very reliable machine can 'break loose.' Then the defective output comes pouring out like a river. True, for the time being, we are holding our own. State acceptance accepted in January not only the planned volume of output, but also slightly more -- 100.9 percent."

That is the remodeling that has provided the fruits that the people at the combine are forced to reap today. Of course, one cannot stop, and that is especially impossible now. It is necessary to bring the job to its completion. But it was noticed very long ago that if you do not do it immediately, it is much more difficult to make up for lost time. And that is what has been occurring. Under the conditions of an equipment shortage, just try to raise persistently the question of urgently modifying the equipment. You can pose the question. Please do! It's not forbidden. It's only that you will hear the reply, "Come to your senses! We've got a long waiting line."

If you want, go take your place at the end of the line."

At the roving-spinning shop in the worsted production area, state acceptance recently stopped the operation of the second roving variety. Now state acceptance is insisting on replacing four machines in the combing shop...

The latest consignment of fabric is being prepared for shipment. People are waiting for this output. It is of excellent quality and the colors are very fashionable. Nearby, hand knitting wool is being packaged. The wool has very attractive colors. The combine produces ten different types of this yarn. It does not lie around unsold, but instead is immediately snatched up by the customers. I visited the commercial yarn shop. The production area is modern and excellently equipped. There is practically no defective output here.

"If everything were like this, they wouldn't need us," Soso Zhividze, the head of the commercial group, says contentedly.

"Has it become any easier for the sales specialists to work with state acceptance?"

"Definitely. In our time we only dreamed about this."

I learn that for several years Zhividze had headed the combine's OTK. A year ago he had left. Why? His fate -- occupational and human -- seemed to me to be largely instructional. Instructional in that it reflects the agonizingly complicated and contradictory movement of light industry toward the high quality of output. The engineer recalled the 9th Five-Year Plan -- "the five-year plan of quality": "during those years the technical control service spread its wings."

"We tried the best that we could to push apart the narrow confines of our powers, to work seriously, to produce a benefit..." But the "five-year plan of quality" ended and again the five-year plan of quantity began. We know what it brought the combine. A dramatic situation has developed. A few people were supposed to answer for all of this. They decided: it would be the chief of the OTK. In a word, there were large unpleasantnesses for Soso Zhividze. Later on, it is true, they got resolved. People had enough common sense to understand and admit that the OTK, which had been reduced to pocket control, was impotent and mute. I observed the work style of the new OTK chief, deputy combine director for quality Tengiz Georgadze. He leads, he commands. And it is a good thing that he commands. It is quality that is in command at the combine.

And now the sales department. But here too Zhividze, as the expression goes, got to the forward line. Here too there was a skirmish between the old and the new. The new is the formation of a production plan and output variety only with a consideration of the results of the wholesale fairs. Things were also mentioned on that account in the decree of the CPSU Central Committee and the USSR Council of Ministers, entitled "Improving the Planning, the Providing of Economic Incentives, and the Perfecting of the Administration of the Production of Consumer Goods in Light Industry." That decree requires producing only those commodities that the customer asks for. And no more than

that. As the expression goes, "Better less, but better." Quality is the same as quantity, is the position approved by the 27th CPSU Congress. But many production planners, as one can see, have their own firm idea about the possibilities of changing over from the quantity of commodities to their quality, about improving the commodity turnover, about the completeness and rates of economic growth. For 1987 they planned for the combine 1,600,000 meters of unordered output with a total value of 18 million rubles. "Modern" arguments on this score are also guessed. Volumes, in their opinion, are the muscles of the restructuring. Those muscles, one must say, are turning out to be quite flabby. With muscles like this, you cannot accelerate any aggressive movement. There is no sales guarantee, and it very probable that all these additional hundreds of thousands of meters will supplement the combine's already immovable "reserves." And what will happen then? Will there be strict measures with respect to the sales service?

"Of course we have plenty of problems, uncoordinated actions, and difficulties," combine director Mamiya Teneshvili says. "We also have more than enough promises to help. But we still cannot see any tangible help. And yet we are counting on receiving more than 4 million rubles of profit this year. But profit is, primarily, quality, including the quality of the raw materials."

The situation here, judging by the desperate warning messages sent by the combine to all administrative levels, is a complicated one. There is no regular rhythm in the shipments, and consequently it is necessary to change the makeup of the mixtures. There have been a lot of complaints about the colors and assortment of the chemical fibers. But the main claims pertain to the quality of the washed wool that the combine gets from several factories throughout the country. Recently our special correspondent Amiran Mitagvariya visited one of them, the Shulaveri factory.

As long ago as the middle of last year, when the people at the worsted cloth combine were convinced that the state acceptance of output would not go away, the administrators of that factory -- and this is completely justified -- sharply posed the question of the quality of the incoming raw materials, including the washed wool. Serious complaints were made against the Shulaveri factory with regard to the initial processing of the wool. Therefore, first of all, the determination was made at the factory concerning specifically what output the combine's claims pertained to. That output is the domestically-produced fine and medium-fine wool. Actually, the wool is of poor quality, in the so-called "weed and burdock defects" grade. No matter what you do to it, you cannot bring it up to specification. The attempt was made to get to the suppliers of that wool. They too had their justifications: the 1985-1986 winter had been a difficult one and the sheep had not had enough to eat, and therefore the wool was poor. There are also, however, serious shortcomings in the work of the animal husbandrymen themselves, not to mention the unsatisfactory wintering-over maintenance of the livestock, which difficulties the Shulaveri factory did not fail to raise to a major height: the carrying out of the shearing without any preparation, the poor sorting of the wool, etc. But all of this takes a long time to correct, but the worsted cloth combine, which had already changed over to state acceptance of output,

was not to trifled with. Therefore the factory recently achieved a shipment to the combine of imported fine and medium-fine wool.

But they did not even stop with that. The factory ships wool to 54 enterprises. They include other enterprises that are working under conditions of state acceptance. Therefore the people at the enterprise also began working on their own internal problems. They established the Hungarian laboratory for incoming and outgoing control, and they mechanized a number of important technological processes. In order to reach every violator of the technological conditions and to eliminate anonymity concerning defective output, they developed special quality record cards. Each brigade was assigned permanently to a definite warehouse. Now one can easily establish the number of the brigade and shift, and, correspondingly, the origin of every bale of wool.

The situation is more complicated with establishing a steady rhythm in the deliveries, because the wool arrives at Shulaveri unevenly. The bulk of it arrives from places far across the sea -- from Australia and New Zealand.

"Frequently we work with materials taken off the transportation before the wheels stop moving," factory director Aleksandr Khutsishvili complains.

Thus, the arrhythmia of deliveries starts long before the wool gets to the processors. The transportation conveyor line here is very complicated and involves merchant mariners, port workers, and railroad workers too.

The stubborn job of improving the quality of output by chain reaction is currently being carried out from the enterprises where state acceptance has been introduced, to the enterprises that produce component materials, semifinished goods, and raw materials. The transportation complex definitely must also be in its epicenter.

For the time being, this is the situation. Recently the Shulaveri factor sent the combine 100 tons of raw materials, and wool is en route from Uzbekistan. The wool suppliers and the workers in the supply system promise that if requisitions are issued, people will get the wool. During the first quarter there is no need to worry. It would be desirable for that to become a good beginning for fundamental, profound changes in the way that the worsted cloth combine is supplied. One of the largest enterprises in the republic's light industry has to work in a stable, rhythmical, confident manner.

Tbilisi Electric Locomotives

Tbilisi ZARYA VOSTOKA in Russian 24 Feb 87 p 2

[Article: "The Chief Criterion Is Quality"; first paragraph is source introduction]

[Text] What has state acceptance become for the workers at the Tbilisi Elektrovostroitel Production Association -- only a strict inspector, or an assistant in resolving problems of increasing quality? In what role does the nondepartmental control act -- the role of a more responsible understudy of

the OTK [technical control department] or of a new technological service that has been called up to resolve, hand in hand with the collective of many thousands of workers, the single task of fighting for the prestige of the association's trade mark?

Those questions set the tone of the work performed by the meeting of the association's party and economic aktiv.

B. V. Nikolskiy, second secretary of the Georgian CP Central Committee, spoke at the meeting.

It was mentioned that the very first results of the work of state acceptance at one of the leading industrial enterprises in the republic have revealed a number of serious problems that require immediate resolution. For example, in January, only 68 percent of the articles were accepted at the first presentation. In February the situation improved somewhat -- 86 percent of the output was accepted at the first presentation. However, an analysis of the miscalculations has shown very convincingly that the losses in quality do not occur in the complicated technological units, but, rather, manifest themselves in small details. Factors which were frequently ignored are now capable of nullifying the efforts of hundreds of people -- machine-tool operators, assemblers, and fitters.

The miscalculations in the job being performed, participants at the aktiv meeting remarked, are inevitably the result of the lack of even the elementary discipline, and of a wasteful attitude toward the existing production potential. The participants also gave figures: the coefficient of shift operation for the equipment, for the lead plant alone, does not exceed 1.28, and in the shops expensive, highly effective machine tools with digital programmed control are standing idle.

The evaluation of the situation was unambiguous: the quality of the output has not yet become the dominant factor in the work of the electric-locomotive builders in the republic's capital. And that means that the administrators of the association, jointly with the state acceptance service, should not limit themselves simply to enunciating the existing problems, but instead should set down a precise program for resolving them, and should put this work under their constant supervision. Simultaneously it is necessary, when making increased requirements on the executors, to concentrate attention on implementing the social problems and to resolve the questions of efficiency as part of an overall problem, taking into consideration the role and importance of every component of high quality of output: discipline, production efficiency, cadre policy, etc. True restructuring in such a very important question as quality requires the efforts of everyone collectively and each person individually. A reliable orientation marker in this regard must be the decisions of the January 1987 Plenum of the CVPSU Central Committee and the draft of the USSR Law Governing the State Enterprise (Association).

G. A. Metonidze, member of the buro of the Georgian CP Central Committee, and leader of a combined brigade, took part in the work of the aktiv meeting.

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ADDITIONAL MATERIAL ON STATE ACCEPTANCE OF PRODUCTION

Georgian Party Work

Tbilisi ZARYA VOSTOKA in Russian 6 Feb 87 p 1

[Editorial: "State Acceptance In Progress"]

[Text] "The process by which cadres assimilate modern management methods and approaches in their work is a difficult and contradictory one, which is not without its painful situations and backslidings into the old way of doing things, a graphic example of which is the introduction of state acceptance. Understanding the tremendous importance of this measure, many collectives prepared well for the work under the new conditions, and things are proceeding for them -- not without difficulties, but they are proceeding, labor discipline is becoming stronger, and the quality of output is improving."

That statement was made at the January Plenum of the CPSU Central Committee.

The first month of the second year of the five-year plan... It was precisely in January 1987 that a number of enterprises and associations in our republic changed over to the new management system, and at 21 enterprises in the republic state acceptance of very important national-economic output and consumer goods was introduced. That state inspection is being carried out by new services in USSR Gosstandart. At the specific locations themselves they have taken under their strict nondepartmental control the quality of the articles being produced.

The creation of special agencies of nondepartmental control is one of the most well-principled measures to resolve the problem of achieving a fundamental improvement in the quality of output. This is supposed to promote the restructuring of the awareness of the engineer and worker cadres at the enterprises, and the attainment as early as the 12th Five-Year Plan of a decisive turning point in raising the technical level and improving the quality of the output being produced.

The question being raised is not a casual one. As was noted at the January Plenum of the CPSU Central Committee, "...we Communist Party members and the rest of the Soviet people can no longer reconcile ourselves to the fact that for years many enterprises have been producing output which has been

hopelessly obsolete, which causes serious complaints on the part of the consumers, and which has been restraining our country's scientific-technical progress. We have undertaken a big job and we are obliged to carry it out to its end."

Under the conditions of restructuring, it is necessary to give the central place to questions of quality. It is necessary in all areas of the work aimed at improving quality to take more decisive steps. This is the way that the party poses the question, emphasizing that the high quality of labor and output is a generalizing indicator of scientific-technical progress and the level of organization of production, culture, and discipline. All the questions -- both the economic and the political ones -- converge here.

Located in the center of the struggle for quality of output are the labor collectives, to which tremendous assets have been entrusted -- machinery and equipment, raw and other materials, and financial resources. Making efficient use of them, revealing reserves, justly evaluating the contribution made by every worker to the overall results, embodying the efforts of the workers and specialists in the highly productive articles, and at the same time taking an uncompromising attitude toward sloppy workers -- all this must become the norm in the life of every working collective, of every primary party organization.

Every job has precise, definite quality indicators that are expressed in the blueprints and technological charts, and in the operational rules and standards. The worker in any occupation has them. Adhering to the established requirements, following them strictly -- therein lies the primary pledge of the efficiency of any job. The person's conscience must be its first and strictest checker. And then, of course, come the services of the technical control departments; the new institution of deputy directors who are deputies for quality; and state acceptance.

But the most important thing here is a precise rhythm. If that is lacking, if there is no precise fulfillment of the assignment during every ten-day period, during every day and hour, it is impossible to avoid crash projects at the end of the month, or, consequently, increased production costs, carelessness and hastiness in assembly operations, or the low quality of the output. And yet that is precisely how we have been doing the job! Most of the enterprises at which state acceptance of output has been introduced operated unevenly or at an incomplete rate during the first ten-day period of January or turned over output in small volumes. The situation improved somewhat subsequently, but on the whole in January state acceptance was actually had submitted to it output with a total value of 75,285,000 rubles, which was 88 percent of the plan. The enterprises that failed to submit output in the established volumes included the Tbilisi Machine-Tool-Building Plant imeni Kirov, the Kutaisi Motor Vehicles Plant, the Bytmash Plant in Batumi, and others.

The first results of state acceptance do not give rise to any particular optimism. They have indicated once again that the restructuring has been proceeding very slowly in our republic's economy. The January results attest to the fact that either many economic administrators do not understand the requirements of acceleration, or that many of them simply are incapable of

fulfilling them. Introducing clarity into this situation is the direct duty of the party committees in the outlying areas.

Every labor collective, every party organization must take all steps to mobilize the workers to improve the quality of the work and the output. And we must not limit ourselves simply to the group of enterprises where state acceptance has been introduced. If state acceptance has not yet been introduced everywhere today, it will be introduced tomorrow, and therefore it is necessary to prepare for it, to achieve the level of the requirements of nondepartmental control -- that is the task of tasks.

Is this posing of a question a reasonable one? Yes, definitely. Take, for example, the situation that developed last year in the republic with regard to the production of articles with the state Quality Seal. According to data provided by GSSR TsSU [Central Statistics Administration], as of 1 January 1987 our republic's industry produced 458 different items with the honored pentagon. During 1986 the amount of output with the highest category of quality had a total value of 803.7 million rubles, which constituted 9.4 percent of the total volume of industrial production, as compared with 9.5 percent on the basis of the computations of the annual plans, and one must not forget that the indicator of the percentage of the output with the highest category of quality in the total volume of commercial output is becoming the rated indicator. Last year individual ministries and departments in our republic, as well as enterprises of union subordination, had a lowering in the level of production of output with the highest category of quality. That situation was observed at Minmestprom [Ministry of Local Industry], Minlesdrevprom [Ministry of the Timber and Wood Processing Industry], and the following production associations: machine-tool building; Gruzpishchemash; "Kutaiskiy Avtomobilnyy Zavod"; Azot; Gruzbumprom; Batumi Petroleum-Refinery and Rustavi Metallurgical Plant; and others. The reduction in the percentage of production of output with the highest category of quality occurred in the cities of Kutaisi and Tkibuli, and in Makharadzevskiy, Bolnisskiy, Signakhskiy, and Tetrtskaroyevskiy rayons.

All this attests to the fact that the task that must be assigned is not simply one of assuring the mandatory fulfillment of the plan under conditions of state acceptance, but also on a considerably broader scale -- the task of assuring the best and most efficient use of the available resources, of introducing order in the production area, of reinforcing labor and technological discipline, and of improving the evenness of operation. A very important task of the party organizations is to achieve a situation in which every work realizes his own personal responsibility for the quality of the work that he is fulfilling, for the quality of the technological operation that he performing, and for the good quality and reliability of the plant's output. It is necessary constantly to remember that an even tempo in production, the fulfillment of the assignments during every work shift, during every work hour, is an important condition for the economic health of the national-economic complex as a whole.

The way in which we begin working during the present year, a year that has been given a very important role in implementing the party's strategic course that is aimed at acceleration, will determine the success of the entire five-

year plan. That is why it is so important, as was noted at the Plenum of the CPSU Central Committee, to concentrate attention from the very first days on the specific jobs to be done, on the implementation of the decisions that have been made. We need painstaking, everyday work, but it is work that is extremely important. It is the work of everyone collectively and of each person individually.

Turkmen Garment Industry

Ashkhabad TURKMENSKAYA ISKRA in Russian 7 Mar 87 p 2

[Article by B. Sosnina, TURKMENSKAYA ISKRA correspondent, under rubric "State Acceptance in Progress": "No Rebates: The New Service Requires High Quality of Output Without Any Rebates for 'Objective' Circumstances"; first two paragraphs are source introduction]

[Text] "Help us!" was the appeal made by the Ashkhabad Knitted Stocking Factory imeni N. K. Krupskaya. "We're sitting here without any raw materials. Soon we won't have anything to submit to state acceptance."

Interruptions in shipments used to occur previously, but today the unobliging attitude of the subcontractors has taken on threatening dimensions. January was coming to an end, and of the 78.5 tons of synthetic and natural yarn that had been planned for the first quarter they had received not a single -- that's right, not a single! -- kilogram. In February the raw materials arrived, but the plan was disrupted once again. The knitting machine operators are inclined to explain this by difficulties with state acceptance.

Needless to say, the introduction of state acceptance caught TuSSR Minlegprom [Ministry of Light Industry] unawares. The experiment in November 1986 was begun at an enterprise whose problems had not been decided by the ministry for decades. If one collects into a single group all the requests and recommendations by the knitting machine operators with regard to economic and social development, one could probably fill entire volumes. Complaints about the suppliers -- this has been, in general, an endless story, to be continued in each subsequent quarter.

Late in 1986 factory director N. Utamyshev asked Minlegprom to replace the unconscientious partners who had been failing to meet their contractual pledges. It seemed that steps were taken. Enterprises with new addresses appeared among the subcontractors, but the situation not only did not improve, but actually has become even more complicated. It was as though many of the subcontractors -- the Leninsk-Kuznetskiy Worsted Cloth Combine, enterprises in Fergana, Zhitomir, and Cheboksary, and others -- had conspired to disrupt the shipment of raw materials to the Turkmen knitting machine operators.

And yet, a month earlier, in December, the factory had been visited by a group of leading specialists from USSR Minlegprom and the branch VNII [All-Union Scientific-Research Institute] of the Knitwear Industry, headed by Yu. V. Papiyan, deputy chief of an administration of the union ministry.

The experiment was in progress, and the attention shown by the branch staff to the first experience in state acceptance was thorough. But there was something else that was surprising and alarming. As she accompanied the guests through the shops, D. G. Divankuliyeva, head of the state acceptance, saw that they were not penetrating very much into the factory's misfortunes. Therefore, soon Yu. V. Papiyan openly, in the presence of S. Artykov, TuSSR deputy minister of light industry, asked Dzhanet Gayipovna to sign a document certifying that the collective was not ready for state acceptance and therefore was asking for an extension of the deadline for introducing it.

You can imagine the situation of the young head of a very responsible service that was, however, taking its first steps. On the one hand, the factor, of course, resembles an artel more than an industrial enterprise: there are no real production lines, the garment-sewing equipment is obsolete, and there is a shortage of skilled cadres.

But, on the other hand, can the refusal of state acceptance guarantee that the ministry will be able to eliminate all the obstacles within compressed periods of time? Especially since the experimental month of November, which was a difficult one for the collective, had taught them a lot and had sharpened the attention to quality. The people realized the need to improve all the bad areas in production.

No, one cannot stop the forward movement. No one is allowed to cancel the implementation of this very important governmental measure to achieve a fundamental improvement in the quality of output. Divankuliyeva demonstrated personal character and did not sign the document, but she mentioned questions the resolution of which required the effective and urgent assistance of the ministry, and primarily the organizing of regular deliveries of yarn and new technology, and the acceleration of redesign efforts. The requests were neatly entered into a notebook, and cooperation was promised.

And then the year began -- with idle time. That was the result of the administrative work in the branch. The consequences have been unfortunate not only materially. The ministry's work style, unfortunately, has become the work style of the enterprise administrators. When, in the upper echelons of administration, people chronically fail to fulfill the tasks assigned to them, the people on the lower floors gradually learn to assign to others those little tasks that are completely up to their capabilities, instead of resolving them locally themselves.

Former chief engineer N. I. Khodzhabagiyants (currently shift foreman) did not conceal the fact that being a curator for quality indicators under the conditions of state acceptance was burdensome for her. Previously it was possible to explain everything by poor yarn or by interruptions in supply, to find a "common language" with the trade system, and also to ask the next question of the ministry. Today she is the person who is asked the questions.

State acceptance representatives would like to know, in particular, the reasons for the weak engineer support of the output quality. The raw materials for the stocking and sock production exist, but during the first 20

days of January 3300 pieces of rejected output, with a total value of 4300 rubles, were sent to isolation.

It took state acceptance representative L. T. Mazurova a considerable amount of labor to convince Nina Ivanovna Khodzhabagiyants that the technological conditions in the shop were not being observed. For the most part, the output fails to conform to the standards, but the prototypes themselves are not ideal. Nina Ivanovna has a ready answer: there's no need to worry, the trade system will accept them. It's an old song, and yet you can still hear it at the factory. The state acceptance representatives were upset not so much by individual technical miscalculations as they were by the failure to accept that which is new, and by the low level of executive discipline.

"Why isn't the label machine operating?" D. Divankuliyeva asks. "Because this isn't a petty detail, because we will not accept output with proper labeling. The garment shop does not have any boxes. Some unknown but skillful thief removed the matrix from the machine, and the machine has been standing idle. So if you could unravel this detective story and repair the machine, the director would have been forced to borrow boxes from a neighboring factory, because that is not his job. Special departments get wages for guaranteeing normal operation."

Every worker used to be required to execute his duties conscientiously, honestly, and precisely, at all times. But now state acceptance has forced people to remember that golden rule, which has been forgotten by many. For two years the people in the garment shop, with their soul at ease, deviated from the standard when producing a size-34 model. And it was only a week and a half ago that they began sewing a belt onto children's trousers, without twisting it all around and while observing the GOST [all-union state standard].

Recently a funny thing happened. State acceptance representatives let children's suits pass through to be sold, but overnight, while at the warehouse, all 446 suits "dried out," and shortened. It turned out that the cloth had not been tested for shrinkage. Obviously, state acceptance intensified its vigilance and has been checking for truthfulness the cloth test statements that were signed at the OTK [technical control department] by M. G. Baysheva. But might one ask where chief engineer N. I. Khodzhabagiyants had been looking?

Nina Ivanovna looked forward hopefully to February, when the technical control service would become independent, headed by the deputy director for quality, the former OTK chief. Throw the old lady off the wagon... However... the state acceptance representatives evaluate soberly their forthcoming promotion. Their promotion by no means signifies an automatic restructuring of their psychology, or their customary work style. Will M. G. Baysheva be able not to take with her into her new chair the mental attitudes she had in her old one? In the cramped officer of D. Divankuliyeva there is an impartial discussion about the quality of the work performed by the... quality checkers. The state acceptance representatives have kindly intentions, but their arguments are rigid. The OTK have not been staffed with efficient specialists.

"We have asked questions," Mayya Grigoryevna Baysheva says, agitatedly.

"It's time to resolve them," Dzhanet Divankuliyeva answers. Then she continues, "The state acceptance representatives are doing work for the OTK -- they reject articles that have passed through the checkers' hands. That should not be, because we have the entire production complex in our field of vision."

The technical-norm documentation (NTD) is ready for by no means all the models to be put into production in 1987. There is a weak demand for the observance of that documentation, and yet the NTD is the basis of high quality. L. T. Mazurova tells us that, according to the documentation, the seams on woman's jacket, model No. 250, should be bound, but they are being made with an overlock machine, which is cheaper. The price of the jacket, however, has not been lowered, and that is how they were sent to the trade network. Currently a search is under way for the article, so that it can be relabeled.

The situation is extremely unpretty and full of conflict. The guilty individuals will be punished, and that will complicate the already complicated situation at the factory. In the garment shop I was stopped by brigade leader, starter N. Shafeyeva. She said, "We realize that state acceptance is a necessary thing, but why are the workers suffering? Why have their earnings dropped and why are many of them being dismissed? Sometimes it is impossible to sew a good garment on the kind of fabric that they give us. Who will buy things like that? Things with a flimsy weave structure, in unattractive colors? It's necessary to start with the organization of production, with the training of the cadres."

That is a justified statement. In our republic, unfortunately, the PTU [vocational-technical schools] still do not train knitting machine operators. But the enterprise, during all the years of its existence, has rarely sent its workers to related enterprises. The policy was, "Hire the people off the street, and we'll train them in the shop."

True, temporary-duty assignments do occur. Garment worker V. P. Gerasimenko says, "Once I was sent on a temporary-duty assignment, to get advanced experience. When I got back home, no one even asked me why I had gone there..."

Yes, the first experience of state acceptance has taught people a lot. Workers' quality control posts have been created. The difficult social duty is being fulfilled in the garment shop by V. Gerasimenko and G. Petrosyan, who are anxious women who have taken into their hearts the state-acceptance tasks.

It would seem that, from understanding and awareness, it is only one step to practical affairs, but how difficult that step is! In January there was a considerable increase in the share of the output that was accepted on the first presentation. But the total value of the outer knitwear that was rejected during the first 20 days was 4000 rubles.

"Our hands won't obey us," Valentina Petrovna Gerasimenko says. "For 30 years they have been accustomed to stitching and pulling more and more quickly..."

They would give us a plan, and they wouldn't hold us too responsible for a curved seam. But now I force myself to slow down."

"Does that mean," I ask, that "you cannot sew fast and well at the same time?"

"For the time being, you can't do both. It's necessary to retrain oneself. But this is a temporary retreat. In a little while we will regain our ground," Valentina Petrovna says.

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STATE ENTERPRISE LAW EXPLAINED

Moscow PLANOVOYE KHOZYAYSTVO in Russian No 4, Apr 87 pp 47-51

[Article by V. Laptev, corresponding member of USSR Academy of Sciences:
"State Enterprise (Association) Under the New Conditions for Management"]

[Text] In examining the draft law concerning a state enterprise (association), which has been published for national discussion, an answer is required for a particular question: under modern conditions, why is there a need for issuing such a law? The reason for promulgating this law derives from the fact that at the present time, with our country engaged in radically restructuring the economic mechanism, one very important trend is that of raising substantially the initiative and independence of the principal production element. In order to raise the effectiveness of social production, a considerable expansion is needed in the economic rights of enterprises and associations and legal conditions must be created for successful work by the principal production element.

It can be stated that restructuring of the economic mechanism is mainly dependent upon radically improving the work of enterprises and associations. The draft law calls for a considerable expansion in their rights, improvements in the planning for and administering of enterprises, the development of complete cost accounting [khozraschet] in their work and a strengthening of production democracy. All of this is laying the foundation for substantial changes in the economic mechanism, changes required for the intensification of social production. Restructuring begins precisely in the principal element, in a decisive sector of the socialist economy. Here the basis is being established for the new economic mechanism and new forms and methods are being developed for socialist management, which in the future will be disseminated to other teams in the economic system.

The adoption of the law concerning an enterprise marks the beginning of radical improvements throughout economic legislation. The new decisions called for in this law must be taken into account when defining the functions, rights and obligations of other economic organs, when developing the legal principles for planning, scientific-technical progress, logistical supply and the marketing of products, when preparing the draft economic code and when regulating legal control over economic relationships both horizontally and vertically.

The importance of the new normative document is borne out by the fact that it will be published in the form of a law, where as the existing normative document concerning enterprises was adopted as a statute approved by the government. Only in a law, as a document of high legal force, is it possible to establish substantially new definitions for the legal regulation of the economic activities of enterprises and associations. Moreover, we have in mind here an all-union law that is unified for all of the union republics. This derives from the unity of the national economic complex, in conformity with which the enterprises and associations in all of the union republics must carry out their work on a unified basis.

The legal regulation of the work of the principal production element is also unified in another sense -- from the standpoint that it encompasses the enterprises and associations of all branches of the national economy. The 1965 statute on an enterprise initially was used only for enterprises in the sphere of material production, but subsequently a need was revealed for disseminating it to other branches of the economy. This was carried out on the basis of individual governmental decisions, which led to unified regulation of the work of practically all enterprises. The mentioned experience was taken into account when developing the draft law.

At the beginning of work on the draft, recommendations were introduced for disseminating the future law to all socialist enterprises, that is, not only to state but also to cooperative and social enterprises. Such an approach would result in excessively abstract wording and would preclude the possibility of clearly defining and expanding considerably the economic rights of enterprises and associations. Indeed, the forms for administering and planning the work of state and cooperative enterprises differ. Thus the impending publication of the law not for all socialist but rather only for state enterprises and associations should be recognized as being completely sound.

In formulating the concept "enterprise," use is made mainly of the definition for a principal production element which existed earlier and which has been retained in existing legislation. Thus, in the last paragraph of Point 2 of Article 1, when defining the legal subjectivity of an enterprise, it is pointed out merely that it is a legal entity. This instruction is correct but inadequate for fully revealing the legal subjectivity of an enterprise. Indeed an enterprise appears as a legal entity only in horizontal economic relationships it has with other enterprises and associations. At the same time, the purpose of the law consists of regulating not only the horizontal but also the vertical economic relationships of enterprises, that is, the relationships which develop between an enterprise and the organs of economic management. This is stated directly in the preamble and in Article 9 of the draft and yet this aspect appears to have been neglected when defining legal subjectivity. Thus, mention should be made in the mentioned paragraph that an enterprise enjoys the rights and carries out the obligations associated with its work and that it is a legal entity. Such wording takes into account its participation in legal relationships not only horizontally but also vertically.

A shortcoming of existing economic legislation is the fact that the rights of enterprises and associations are defined in it by enumerating the rights which belong to the principal production element. This results in restrictions being placed upon the economic independence of enterprises and associations and it raises a need, during a change in economic conditions, for constantly handing down decisions concerning the presentation to enterprises of new rights for the handling of certain specific problems. At the present time, another approach is needed for defining the rights of the principal production element: it must be recognized that an enterprise can do not only that which it is authorized to do but also that which it is not forbidden by legislation to do.

In Point 5 of Article 2 of the draft, it is pointed out that an enterprise "can hand down decisions on all production and social questions so long as they are not in conflict with the legislation." This wording is oriented towards providing a broader understanding of the economic rights of enterprises. However, it cannot be considered as adequate, since the mentioned conditions can be interpreted in the sense that an enterprise can function only within the norms and rules established in numerous documents of existing legislation.

Thus this statute must be worded more clearly. It should be stated directly in the law that only the principal rights of an enterprise are defined in it and that, in addition, enterprises can carry out any tasks and perform any work that is not forbidden by law. In addition, it can hand down decisions on all matters so long as they are not in conflict with the legislation. The law will then truly and substantially expand the rights of enterprises.

Obviously, the use of such a method for defining the economic competence of an enterprise does not signify a refusal to enumerate its principal rights within the law. Thus the rights of enterprises with regard to the use of property assigned to them are on the whole defined successfully. This property is correctly viewed in the draft as being an isolated portion of national property which is under the control (it is more accurate to say operational control) of the enterprise. In conformity with the draft, the law must promote a strengthening of state (national) ownership and at the same time it calls for a considerable expansion in the property rights of enterprises, the labor collectives of which must utilize their national property in a thrifty manner.

Towards this end, an enterprise is authorized to independently transfer over to other enterprises and organizations and to sell, exchange or rent and to present free of charge for temporary use unused material values (Point 4 of Article 4). It is authorized to dispose of independently above-plan output (Point 2 of Article 16). The rights of an enterprise are also being expanded by enlarging its existing funds and by forming one fund instead of several, for example, a single fund for the development of science and engineering in place of a fund for production development and a fund for the development of science and engineering. Thus the principle of special purpose use of property is becoming weaker in our legislation and greater opportunities are becoming available for allowing enterprises to determine independently the trends for the use of property.

Conditions are being created for the introduction of complete cost accounting, according to which, on the basis of self-financing, an enterprise covers the expenses not only for current economic activities but also for the creation and introduction of new equipment and for social development. All of this is done using the cost accounting income of the collective, which is placed at the disposal of the collective and which is not subject to withdrawal (Point 1 of Article 3). The introduction of complete cost accounting and an expansion in the property rights of enterprises are placing on a more practical basis the requirement which holds that the administration of enterprises should be carried out using mainly economic methods.

At the same time, certain inaccuracies are tolerated when defining the structure of property. Thus, in Point 1 of Article 3, the fund for the development of production is included among the economic incentive funds. However, such a description for this fund is inaccurate, since it fulfills not only stimulating functions but it must also be used as a principal source for financing the production and technical development of an enterprise.

Despite a radical expansion in the economic rights of enterprises, the draft nevertheless unjustifiably restricts their independence in certain instances. In Point 4 of Article 3, for example, provision is made for transferring a portion of the material incentive fund into the fund for social development, but not the other way round. It is believed that under modern conditions a reverse transfer should be permitted: enterprises should be authorized to use a portion of the fund for social development for augmenting the material incentive fund.

The rights of enterprises with regard to solving problems associated with use of the wage fund are expanded somewhat in the draft: instead of the three norms which are approved at the present time for forming a wage fund (for leading and engineering-technical personnel and for designers and technologists), provision is made for the approval of only two norms, in conformity with which the wage fund for designers and technologists will be determined by the enterprises themselves. However, it is believed that under the conditions imposed by complete cost accounting a restriction should be placed only upon the approval of a general norm for the formation of the wage fund, within which enterprises could independently solve the problems concerned with the categories of workers needed by them for ensuring successful economic work.

Operational planning for an enterprise must be carried out in conformity with the principle of democratic centralism. In articles 9 and 10, provision is made for ensuring a centralized basis in planning the use of control figures, economic norms, state orders, customer orders for products and material resource limits. At the same time, emphasis is placed upon the role played by economic contracts with respect to deliveries of products, a factor which is of progressive value for the development of economic managerial methods and complete cost accounting in the work of enterprises and for carrying out planning with the needs of the consumers being taken into account.

Considerable interest is being displayed in the statute contained in Point 5 of Article 9, which holds that the carrying out by an enterprise of work volumes or services not called for in the plan, in response to the tasks of a higher organ or decisions handed down by soviets of people's deputies, will be on the basis of economic contracts. True, the wording of this point must be more precise, with emphasis being placed upon the fact that the contract must be concluded specifically with the organ that issued the additional task, with the expenses being reimbursed by that organ or organization for which the work is being carried out.

In the draft, special importance is attached to the contractual principles, with the assumption being that they must be developed during approval of the plan tasks. This is reflected in the new terminology: a plan task is referred to in the draft as a state order that is mandatory for an enterprise. True, the term "state order" for all practical purposes is not found in the draft and, as a result, the idea of vertical contracts remains unsettled. It is believed that progress can be made without it, after establishing the fact that, based upon a small number of approved plan indicators, the higher organs conclude contracts with enterprises which provide for mutual rights and obligations in the carrying out of these tasks. It will then be clear that the discussion has to do not simply with a new term, but rather with the introduction of contractual vertical relationships which do not undermine centralized planning in terms of a limited number of plan indicators and which make it possible to utilize the principles of a collective contract in relationships between enterprises and higher organs.

With regard to the plan indicators themselves, they must be different for enterprises of different branches of the economy. Thus it is pointed out in a very sound manner in the draft that the list of indicators, norms and limits is determined by the USSR Council of Ministers. A higher organ is not authorized to supply an enterprise with plan indicators, norms and limits which are not found on this list (Point 5 of Article 10). It is forbidden to make corrections to the economic norms which must be established for an enterprise (Point 1 of Page 9). These directions are extremely important for ensuring the rights of enterprises in the area of planning which, as is well known, are often violated by higher organs.

However, it is believed that the mentioned statutes must be supplemented by an instruction which states that in the event enterprises are supplied by higher organs with plan indicators, limits and norms not provided for in the list or with instructions by a higher organ concerning a change in norms during their effective period, an enterprise is authorized to refuse to carry them out. Thus, not only would rational rules be called for, but in addition a legal guarantee would be established for their realistic observance.

It bears mentioning that such an approach is typical of a draft in many instances. In addition to the need for observing socialist legality being reflected in it, legal guarantees are also provided for ensuring the mentioned principle. Considerable importance is attached in this regard to the statute contained in Point 3 of Article 9: "Losses sustained by an enterprise as a result of carrying out an instruction by a higher organ which violated the rights of the enterprise, will be reimbursed by the organ which issued the

instruction. Disputes over the question of reimbursement for losses are resolved by means of state arbitration." The introduction of such a rule will play an important role with regard to truly protecting the economic rights of enterprises and ensuring complete cost accounting in the carrying out of their work. With its adoption, the higher organs will no longer be able to tolerate incidents of unpunished violations of the rights of enterprises, as is happening quite frequently at the present time.

Recommendations for the arbitration of economic disputes vertically were introduced long ago into the legal science. But they were usually rejected with a reference being made to the fact that a director cannot sit in judgment with a ministry upon which he is entirely dependent. The situation is changing radically at the present time, with enterprise and association leaders being elected to their positions. Under such conditions, a director is obligated not only to observe the state interests but also to carry out the will of the labor collective (Point 4 of Article 6). An expansion in production democracy and an increase in the importance of labor collectives will strengthen the interest of enterprises in their operational results and increase their activity in the matter of defending their economic rights.

At the same time, it is considered advisable to expand the rights of state arbitration in the matter of exercising control over the legality of economic administration and planning documents. Towards this end, it should legally be established that economic administration and planning documents which violate the rights of enterprises and which are in conflict with legislation are recognized as being invalid based upon a decision handed down by the organs of state arbitration. Thus the system of guarantees for the economic rights of enterprises and associations will be more complete and this will make it possible to organize economic activities in strict conformity with the legislation.

From a legal standpoint, it can generally be said that the draft is still in need of improvement. In some instances, the statutes set forth in it are legally inaccurate or are not supported by the required legal means. For example, it is stipulated in Point 5 of Article 11 that a scientific-production association is responsible for the scientific-technical level of the product (work or service) being produced in the national economy according to its profile. But in order to carry out this function, the association must be granted the necessary rights with regard to the appropriate organs, otherwise it will be unable to carry out the particular task.

Substantial importance is attached to those statutes contained in the draft which are aimed at strengthening responsibility for the results of economic activity. First of all, we have in mind the responsibility of an enterprise to finance its own activities using its own resources, that is, economic responsibility. Article 23 bears mentioning in this regard; it has to do with the termination of an enterprise's activities following an extended period of unprofitability and insolvency. At the same time, it is hardly correct to point out in this same article that an enterprise can be reorganized only in accordance with the principles set forth in legislation. We do not believe there is a need for including in legislation a list of the principles for

reorganizing enterprises -- this question can be fully resolved based upon those statutes included in the draft.

Returning to the question of increased responsibility, it should be noted that it is called for in the matter of traditional legal responsibility -- the payment of fines and reimbursement for losses. Thus, in Point 5 of Article 15 it is stated that in the event of a disruption in the availability of transport equipment, as called for in the plan or in a contract, the transport enterprises must bear responsibility in the amount of the losses sustained. Thus a solution is found for the vexing problem of lowered responsibility on the part of transport organizations, an intolerable problem under the conditions of complete cost accounting and one which presupposes complete and equal responsibility for the economic organs of various branches of the economy.

New solutions are being included in the draft for the questions concerned with the responsibility of structural units of associations. In Point 5 of Article 5, it is emphasized quite correctly that they operate on a cost accounting basis and not on an internal cost accounting basis in the manner of enterprise subunits. Moreover, the structural units conclude economic contracts not only in behalf of the association, but in accordance with a decision handed down by the association they can be authorized to conclude contracts in their own behalf. In this instance, a structural unit bears responsibility, in accordance with its obligations, for the property assigned to it and it may have a bank account. If a structural unit does not have sufficient property, the association may bear additional responsibility for its obligations. These statutes strengthen the responsibility of structural units and promote the development of cost accounting in their work and this is extremely important under conditions involving the strengthening of associations and structural units, with the branches being converted over mainly to a twin-element system of administration.

At the same time, the role played by certain legal documents in defining the work of enterprises has been lowered unjustifiably in the draft. Thus, Point 3 of Article 23, in which the regulations for an enterprise are discussed, is dedicated to the creation and elimination of enterprises. This is clearly an unsuitable place for such an important document as the regulations for an enterprise. It is obvious that the statutes concerning these regulations should be set forth in an independent articles and placed in the first section of the draft.

Finally, it bears mentioning that the establishment of the peculiarities of use of the law is provided for in Article 24. This is extremely important in view of the fact that the law will be disseminated to enterprises and associations of various branches of the national economy which differ considerably from one another. The peculiarities involved in the use of legislation governing enterprises were established earlier by the ministries and departments, which in their instructions often limited the rights of enterprises. It is pointed out in the draft that the peculiarities can be established only by the USSR Council of Ministers and this will make it possible to ensure the rights of enterprises when defining them. At the same time, it should be pointed out in this article that the peculiarities in the

use of the law can be determined through approval of the statutes governing individual types of enterprises and associations. Such a system will make it possible to establish the peculiarities in a form suitable for operational practice.

The publication of the law governing a state enterprise (association) is an important step in the restructuring of the economic mechanism. In this manner the legal status of the principal production element will be determined, the initial aspects of improvements in the legal regulation of economic relationships both horizontally and vertically will be established and the foundation will be laid for a future radical restructuring of all economic legislation.

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TRANSITION TO SELF-SUPPORTING, APK UNITS STUDIED

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[Article by I. S. Kononov, head specialist of the Finance Administration of the USSR Gosagroprom, candidate of economic sciences: "The Possibilities of Changing Agricultural Enterprises Over to Self-Support [samookupayemost] and Self-Financing"]

[Text] At the present time work is being done for changing kolkhozes and sovkhoses over to self-support and self-financing. The decree of the CPSU Central Committee and the USSR Council of Ministers of 20 March 1986, "On Further Improvement of the Economic Mechanism for Management in the Country's Agroindustrial Complex," has determined that agricultural enterprises must carry out expanded reproduction and construction of facilities for nonproduction purposes, as a rule, using their own funds and credit from the USSR Gosbank. Budget allocations are allotted to them mainly for further developing the material and technical base, increasing the production of agricultural products, and solving social problems.

These should be the starting points when developing ways of changing sovkhoses and kolkhozes over to self-support and self-financing. This is not a simple task. Suffice it to say that, according to preliminary figures, during 1986 7.8 percent of the kolkhozes and 17.8 percent of the sovkhoses operated at a loss. Although the proportion of farms operating at a loss has decreased severalfold as compared to 1982, it is still significant. On kolkhozes that are operating at a loss the expansion of production has been carried out mainly using bank credit, which is not likely to be returned on time from such farms; on the sovkhoses they have used mainly budget funds and profit from other sovkhoses that have been redistributed.

The financial and credit mechanism that is in effect at the present time corresponds more fully to the requirements of complete cost-accounting [khozraschet]; the money earned by the farms is no longer redistributed and budget allocations will be distributed among the sovkhoses by agroindustrial agencies on the basis of the objective needs and the results of the operation of the enterprises, without their being subdivided into those with low and high profit. In order to equalize the conditions for reproduction, the agriculture industry administrations of the union republics can centralize up to 10 percent of the funds allotted for increments to procurement prices for

agricultural products that are sold to the state by less profitable farms and those that are operating at a loss, as well as funds that are allotted for rendering assistance to individual agricultural enterprises that are operating under especially difficult conditions.

An analysis of the possibilities of changing farms over to self-support and self-financing includes a study of the following basic aspects of the activity of the farms:

- a) stability of agricultural production, financial results of work and their stability;
- b) the resource potential: capital and labor provision, the availability and quality of agricultural land, the provision of facilities of the social infrastructure;
- c) the provision with their own circulating capital and the condition of accounts with the bank;
- d) sources of financing expenditures for expansion of production; the optimal nature of their structure;
- e) reserves for increasing profitability (increasing production, economizing on expenditures, and so forth);
- f) volume and structure of budget funds that are received.

An important place in this work belongs to the plan of measures for increasing the profitability of the farms. In keeping with the decree of the CPSU Central Committee and the USSR Council of Ministers concerning improvement of the economic mechanism, the APK must develop and implement concrete measures for each farm that has low profit or is operating at a loss so as to guarantee acceleration of the growth of the production of agricultural products and to increase labor productivity and the profitability of production. Every measure in the plan must be substantiated and easily verified.

Let us consider the basic areas of an analysis of the possibilities of operating a farm using principles of self-support and self-financing, using the examples of Khasavyurtovskiy Rayon in the Dagestan ASSR--the 20 Let Oktyabrya Sovkhoz and the Sovkhoz imeni Sultanov.

The 20 Let Oktyabrya Sovkhoz has 4,215 hectares of agricultural land, including 3,196 hectares of arable land, the value of the fixed production capital exceeds 6.7 million rubles, and the farm has a surplus of labor resources.

Under the 11th Five-Year Plan the plan for producing the growth output was not fulfilled even once, the production cost of the products increased, and the output-capital ratio decreased by 5.8 percent as compared to 1981. In 1985 the earnings from the sale of products and services amounted to about 2 million rubles, including 377,000 rubles from increments. The farm

specializes in the production of rice and milk, for which the overall earnings were 21.2 and 29.4 percent, respectively (Table 1).

Table 1--Financial Results of Operation of Sovkhozes

	thousands of rubles							
	1982		1983		1984		1985	
	Profit		Profit		Profit		Profit	
	<u>Planned</u>	<u>Actual</u>	<u>P</u>	<u>A</u>	<u>P</u>	<u>A</u>	<u>P</u>	<u>A</u>
20 Let Oktyabrya Sovkhoz	+147	=314	+190	-614	+40	+19	+300	-57
Sovkhoz imeni Sultanov	+173	+23	+215	+461	+173	+583	+180	+273

In 1985 the 20 Let Oktyabrya Sovkhoz had 297,000 rubles in profit from the sale of crop-growing products and 102,000 rubles in profit from the sale of animal husbandry products.

Expenditures on the expansion of production and social-cultural and economic measures, including expenditures made from budget allocations, amounted to 738,000 rubles (Table 2). Of the 233,000 rubles of budget funds, 150,000 rubles went for reimbursement for insurance payments, 36,000--for financing capital investments, 32,000--for maintaining children's preschool institutions, and 15,000 rubles--for operational expenditures. When comparing the expenditures on expanded reproduction and the sources for covering them it is recommended that one consider the following positions (see Table 2).

Table 2

	thousands of rubles	
	<u>20 Let Oktyabrya Sovkhoz</u>	<u>Sovkhoz imeni Sultanov</u>
Expenditures		
Capital investments	313	323
Formation of basic herd	63	--
Increase of normative of internal circulating capital	93	--
Expenditures on social-cultural and management measures (including deductions into reserve fund)	72	134
Other expenditures	197	23
Total	738	480
Sources for Covering Expenditures		
Internal funds	505	318
Percentage	68.4	66.3
Including profit	--	153
Budget allocations	233	162
Percentage	31.6	33.7

The farm together with the RAPO [rayon agroindustrial association] developed a plan for increasing profitability in 1986, which envisions obtaining additional profit by implementing the following measures:

- 1) selling 1,000 tons of grain in excess of the state plan which will produce an additional 142,000 rubles;
- 2) receiving from farms of mountain regions no less than 500 tons of commercial rice and processing it to seed conditions--an additional 45,000 rubles;
- 3) making maximum use of the sovkhos motor vehicle and tractor fleet for shipping grain, which will make it possible to save the 13,000 rubles spent on bringing automotive transportation in from the outside;
- 4) reducing expenditures on post-harvest processing of rice grain by 20,000 rubles;
- 5) selling 500 tons of rice straw to other farms for 7,500 rubles;
- 6) having provided for continuous operation of the cooler, bringing the sale of high-grade milk up to 90 percent--an additional 20,000 rubles;
- 7) reducing the staffs according to the assignments of the RAPO which will produce an additional 3,000 rubles in savings.

The implementation of the plan of measures will make it possible to obtain an additional 250,500 rubles in profit. Moreover, calculations show that a 1 percent savings on expenditures and a reduction of nonproductive expenditures and losses from the death of cattle by half will produce about 26,000 additional rubles. Thus the farm can obtain more than 260,000 rubles in additional funds, which will make it possible not only to eliminate the losses, but also to have 219,000 rubles in profit, which will be almost equal to the sum of budget funds obtained by the sovkhos in 1985.

If they assimilate the intensive technology for rice production and obtain the effect envisioned by the plan of measures for increasing profitability, the Sovkhos 20 Let Oktyabra can operate with self-support (taking into account the forthcoming payments into the budget and a centralized reserve fund). But it will be difficult for the farm to pay back loans that will be due under this five-year plan. Therefore until the sovkhos achieves a sufficiently high and stable profitability it would be expedient for it to retain budget allocations for reimbursement for insurance payments, and construction and maintenance of social and domestic facilities.

It is important for the agroprom of the Dagestan ASSR and the Khasavyurtovskiy RAPO to develop the proposals of sovkhos specialists concerning sharply increasing the profitability of production. The fact is that the greatest losses come from raising rice. In 1985 alone they amounted to 202,000 rubles,

in spite of the 70,000 rubles in increments to the prices. Rice production is not increasing and the plans are not being fulfilled.

This crop takes up 1,400 hectares of arable land and some of the rice paddies are located on heavy loamy soil which does not dry out because of the extreme moisture by harvest time, and this leads to great losses of the crop. On such land, because of the great moistness of the soil, it is impossible to do fall plowing; the plowing is done hurriedly in May. During 1966-1979 large amounts of money were invested in creating the paddies, but even now a considerable proportion of them require operational restorative leveling. Farm specialists suggest concentrating rice plantings on paddies with sandy loam soil, and raising grain and other crops with intensive technology on the areas that are freed.

The neighboring Sovkhoz imeni Sultanov, which is not far from the rayon center, raises fruits and grapes and has 1,141 hectares of agricultural land, including 279 hectares of plowed land. In spite of the shortage of labor force, the sovkhoz operates stably, fulfills the plan for profit, and in 1985 had a profitability of 33 percent. The farm has a sufficient amount of its own circulating capital, it pays back the bank on time, and it does not have extended or overdue loans. In 1985 it received budget allocations of only 139,000 rubles for capital investments and 23,000 rubles for the maintenance of children's institutions.

The farm is very well provided with its own production capital and housing, but it is experiencing a critical shortage of social, cultural and domestic facilities. Farm specialists link the possibility of changing over to self-financing to the need for changing the structure of the planet areas. The sovkhoz could be changed over to complete self-financing if the payments into the budget and into the reserve fund could be kept at the level of past years.

When studying the possibilities of working according to principles of self-financing of the totality of all farms included in the RAPO, one should utilize the given groupings of agricultural enterprises according to the level of profitability and the amount of profit received on an average per farm in each of the intervals of the grouping. Enterprises with profitability of more than 30-35 percent can be changed over to self-financing. Enterprises that have less profitability but receive a considerable absolute amount of profit also have the possibility of operating without budget funds. When necessary they can be allotted money from the centralized RAPO funds. More attention should be devoted to enterprises that have profitability and profit that is bordering on the level necessary for self-financing. On these farms it is necessary to conduct the study very thoroughly and reveal reserves for increasing the income and reducing expenditures.

On local farms and in local administrative agencies it is necessary to do more active and purposive work for changing agricultural enterprises over to self-financing.

The work with less profitable farms and those that are operating at a loss is organized well in the Belorussian SSR. In 1985 of the 2,476 kolkhozes and sovkhozes that were operating at a loss, there were only 14 individual farms.

The republic agroprom developed a structure of a plan of measures for economic reinforcement and social development of the backward farms during the 12th Five-Year Plan:

- a) an analysis of the subjective and objective causes for the arrears;
- b) measures for overcoming the arrears taken through the efforts of the farm;
- c) assistance in improving the service for farms by the RAPO and the patron organizations;
- d) measures for improving trade, domestic, medical, cultural, transportation and other kinds of service for the population on the territory of the farm;
- e) economic and social results of the measures.

A task has been set to provide for a level of profitability of no less than 25 percent on every farm by the end of the five-year plan. Taking into account the recommendations of RAPO specialists, the kolkhozes and sovkhoses are developing measures which will then be generalized in the rayon, oblast and republic.

At the present time all the farms of entire rayons can carry out self-financing of expanded reproduction. Take, for example, Minskiy Rayon.

The Minskiy RAPO includes 34 agricultural enterprises, including five kolkhozes, 28 sovkhoses and one agricultural interfarm enterprise. On the whole for the RAPO the plan for the sale of the basic kinds of agricultural products to the state was overfulfilled in 1981-1985. In 8 months of 1986 as compared to the same period of 1985 the sale of milk to the state increased by 12.1 percent and cattle and poultry--by 9.1 percent, but because of difficulties in sales the sale of eggs decreased by 0.7 percent.

During 1983-1985 the agricultural enterprises operated profitably. In 1985 they received 54.6 million rubles in profit while the plan was for 47.7 million rubles. The list of highly profitable kolkhozes and sovkhoses that receive increments to procurement prices includes 11 farms which were paid 4.4 million rubles' worth of these increments in 1985. Economic work is well arranged in the RAPO. The plan for procurements for the 12th Five-Year Plan has been distributed to the farms, taking into account the production potential and a detailed analysis is being conducted of the economies of kolkhozes and sovkhoses. Plans of measures for strengthening the economy of farms with less profit have been thoroughly worked out.

On the farms of the Minskiy RAPO expenditures on the development of production, including expenditures for social and cultural needs and economic measures amounted to 70.6 million rubles in 1985, including their own capital --59.5 million rubles, Gosbank credit--1.5 and budget allocations--9.6 million rubles.

Analysis shows that during the course of the implementation of the state plan the following additional financial resources can be obtained (per year, thousands of rubles):

From increasing earnings received from selling products and rendering services by 1 percent	1,970
From reducing the production cost of agricultural products by 1 percent	1,454
From reducing nonproductive expenditures and losses by 5 percent	66
From increasing to 60 percent the sum of reimbursements by state insurance agents for losses from natural disasters	<u>34</u>
Total	3,524

Additionally, for financing expenditures for expanded reproduction the sovkhozes can use the free residual profit (7.5 million rubles) which was previously withheld. Consequently, it is possible to mobilize more than 11 million in additional funds, which is 1.1 million rubles more than the sum of budget allocations received by agricultural enterprises in 1985.

The farms have plenty of their own circulating capital and, as a rule, they pay back Gosbank loans on time. Their indebtedness for long-term credit is not great, and as of 1 September 1986 it amounted to 6.6 million rubles, of which 2 million rubles will have to be paid under the 12th Five-Year Plan. All the long-term loans, according to an estimate of RAPO specialists, will be returned to the bank on time. There were difficulties with paying back long-term credit under the 12th Five-Year Plan on the Kolkhoz imeni Kalinin and the Put k Kommunizmu Kolkhoz and they were granted an extension until 1995. Thus on the whole the RAPO can function according to the principles of self-financing with the following conditions:

- 1) There are no sharp changes in the dynamics of capital investment;
- 2) That the sums obtained from increments to prices for the sale of products to the state in excess of the average level and increments to prices for less profitable farms and those operating at a loss stay at the level of past years.

Then it would be expedient to retain budget allocations only for covering expenditures for radical improvement of land and maintenance of the machine testing station. They should more actively acquire long-term credit, which many farms do not usually use.

But in 1986 there was a significant decrease in the sum of funds obtained from payment to the farms of increments to prices for exceeding the average achieved level of sale of products. Therefore it is necessary to proceed in stages when changing the Minskiy RAPO over to self-financing, retaining budget allocations during the first years for maintaining and constructing facilities for social, cultural and domestic use.

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LEGAL EXPERT ANSWERS PRIVATE PLOT INQUIRIES ON NEW LABOR LAW

Moscow SELSKAYA NOV in Russian No 4, Apr 87 pp 20-21

[Interview with Mikhail Ivanovich Kozyr, head of a sector on agricultural legal problems at the Institute of the State and Law of the USSR Academy of Sciences, doctor of Legal Sciences; first four paragraphs are source introduction]

[Text] This law is being discussed and covered extensively in the press. Emphasis is being placed upon the fact that it must promote more complete satisfaction of the social requirements for goods and services, raise the employment of the population in socially useful work and obtain more income for society in conformity with labor expenditures.

The attention being given to the new law is understandable: indeed, one way or another it touches upon the interests of millions of people -- both those who are engaged in or who plan to engage in private labor activity and those who will utilize the products and services produced in this sphere of the economy.

Naturally, the readers of our journal are primarily interested in those statutes of the law which are concerned directly with work and life in the rural areas.

We have generalized those questions received most often in the Editorial Board's mail and we have asked M.I. Kozyr, Doctor of Legal Science and head of a sector on agricultural legal problems at the Institute of the State and Law of the USSR Academy of Sciences, to provide answers for them.

[Question] Mikhail Ivanovich, many of our readers are interested in learning if the private economy is considered to be a form of private labor activity. Generally speaking, an answer is furnished in the law itself: it does not cover the LPKh [lichnoye podsobnoye khozyaystvo; private economy]. However, by no means is this understood by all concerned. What are the differences between these forms of labor activity. Indeed, they are both based upon private labor.

[Answer] The differences are substantial. If confusion is to be eliminated, these differences must be clearly understood. A mixing of these forms of labor activity can lead to various types of unjustified administrative measures. This has already occurred.

The private economy is a component part of socialist agricultural production. This is stated very definitely in the decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Further Improvements in the Economic Mechanism for Management in the Country's Agro-Industrial Complex."

Kolkhozes, sovkhozes and other enterprises of the agro-industrial complex supply the population with grain forage, coarse and succulent feed, seed, planting stock, young animals and poultry, they make pasture and haying lands available, they furnish assistance in working the private plots, they provide agrochemical and veterinary services for the private economy and so forth. The private economy simply could not exist in the absence of such material and technical assistance.

Moreover, there is a mutual advantage here: a considerable portion of the products produced on the private plots is purchased by consumer cooperation, kolkhozes and sovkhozes and is credited to them in behalf of plan fulfillment.

But the close link between the private economy and public production is not based upon this fact alone. They are united by labor relationships. As a rule, the citizens who manage private plots are members of kolkhozes, sovkhoz workers or pensioners who live on the farm territories. With certain peculiarities, these characteristics of the private economy also extend to the interrelationships of members of horticultural associations with the enterprises and organizations in which they work.

The situation is different in the case of private labor activity. Whereas the private economy is based upon the participation of citizens also in public production, the same cannot be said for the ITD [individualnaya trudovaya deyatel'nost'; private labor activity]. Actually, individuals engaged in private labor are not associated with the place of their principal occupation and they receive no logistical assistance from there. Moreover, under certain conditions, citizens who are not working in public production may engage in private labor activity.

Still another difference bears mentioning. The private economy and collective horticulture and gardening are aimed mainly at providing self-support for a family. Quite often, a family simply cannot exist in the absence of products produced on a private plot. In the case of private labor activity, it is based entirely upon the sale of goods and the rendering of services to other citizens.

At the same time, and this should be emphasized once again, private labor activity is socially useful and in this sense should not be viewed as a type of "alien element" with regard to public socialist production. On the contrary, it serves as an aid to it -- it helps to satisfy more fully the population's demand for the needed goods and services. For example, in the rural areas the proportion of private labor activity in domestic services

reaches 80 percent. Of basic importance is the fact that private labor activity eliminates the need for employing hired labor, since it is based upon the private labor of its members and their families. Thus there is no basis for including private labor activity in the "private sector." Such terminology reflects poorly on the moral-psychological atmosphere surrounding private labor activity.

Thus, notwithstanding certain similarities, private labor activity cannot be identified with the private economy. These types of labor activity cannot be regulated by the same law. Otherwise the private economy would become the object of increased attention by the financial organs and stern administrative control and this in all probability would bring about a reduction in the production of agricultural products.

It is by no means an accident that the private economy and private labor activity are mentioned in various articles of the USSR Constitution. Whereas the state undertakes to provide assistance to citizens in the management of their private plots (Article 13), in the case of private labor activity, the constitution contains the following entry: "The state regulates private labor activity, ensuring its use in the interests of society" (Article 17).

By no means are these differences restricted to their theoretical value. They have a direct effect on the daily activities of those engaged in managing private plots or who are engaged in private labor activity (or are adjusting to this possibility).

For example, for the purpose of managing a private plot or engaging in collective horticulture or gardening, it is not necessary to obtain special permission or to declare one's income. But citizens who have expressed a desire to engage in private labor activity must obtain permission from the executive committee of the rayon, municipal, municipal-rayon, settlement or village soviet of people's deputies where he permanently resides. The length of the period of authorization is determined by the ispolkom, but it must not exceed 5 years. Moreover, in order to commence private labor activity, a citizen must be certified or acquire a patent from the financial department of the executive committee.

[Question] You have stated that the principal distinctive features of the private economy apply also to collective horticulture and gardening. But there is a large segment of the population -- approximately 7 million persons -- which manages private plots while living in small cities. It appears to me that they operate under different and more complicated economic and legal conditions than do rural residents who manage private plots. Is this not so?

[Answer] This question requires special study and reflection. At the present time, the private plots of citizens still function on the same legal basis as do other private plots. The existing system of control fully applies to them as it does for all private plots. The local soviets must provide them with assistance.

[Question] Article 17 of the USSR Constitution concerns private labor activity in the sphere of agriculture. Since here we are not discussing private plots, could you please explain exactly what is meant by this form of land management? What are the scales of this management and how is it regulated?

[Answer] In conformity with this article, private labor activity is permitted in the USSR in the sphere of domestic trades, agriculture and domestic services for the population and also in other types of activity, based exclusively upon the private labor of citizens and members of their families. The constitution does not define precisely the type of private labor activity to be employed in agriculture. A section dealing with this activity was not set forth in the law governing private labor activity.

The law on labor land utilization by citizens engaged in private labor activity in agriculture (in earlier legislation they were known as non-members of collective farms) is regulated by Article 29 of the Principles of Land Legislation of the USSR, which contains the following entry: "Citizens who engage in private labor activity in agriculture, based upon private labor and the labor of members of their families are authorized to use private plots and field land made available to them, in the manner and in keeping with the norms established in the legislation of the union republics."

Field plots are intended for the principal production activities of such peasant farms. As a rule, they are located beyond the limits of the respective populated points. The field plots must be located at the ends of crop rotation fields so as not to create any problems in kolkhoz land utilization. The private plots are used for the placement of housing and the farm buildings of peasant yards and also for management of the private plot economy. These plots are allocated only within the limits of populated points (villages, towns).

There are very few such peasant farms remaining in the country and for all practical purposes they are not taken into account in statistics. Thus there was no need to devote a special section to them in the law governing private labor activity.

[Question] Prior to the adoption of the new law, some types of private labor activity were generally not mentioned in the legislative and normative documents. As a result, the organs of government in the various areas often acted according to the principle: not authorized -- thus prohibited. Some types of private labor activity considered to be useful for society and required for society fell into the category of "illegal." The law governing private labor activity removed the unjustified limitations. It furnished a well developed list -- more than 30 types -- of officially authorized trades and services. Can it not be assumed that among them there are some which are needed by rural residents?

[Answer] Yes, many of the types of private labor activity specified in the law are not only useful but in fact are vitally needed in the rural areas. Let us take a service such as the grazing of privately owned livestock. Many villages are now confronted with the problem of finding a shepherd for their privately owned herd.

Rural residents have an acute need for the sewing and repair of clothing and footwear, the repair of metal products and furniture, the repair of domestic appliances and for other services, which the "official" domestic service is incapable of providing fully, especially if we have in mind small or remote villages. The rural residents must turn to the cities for such services. The material and moral expenses of such a situation are high. Sociologists view this as one of the reasons for the migration from the countryside.

It is hoped that with the aid of private labor activity we will be able to fill more rapidly the "vacuum" that has formed in the sphere of rural domestic services, increase their volumes and expand the assortment. The state domestic service will have a competitor. Thus it must improve its operations and display greater concern for and raise the quality of its services. And this will benefit the rural areas.

With regard to those services which were illegal earlier but which now exist legally, I would cite first of all construction, repair and the organization of public services and amenities for housing, garden buildings, garages and other buildings in accordance with contracts with hired brigades, which often were unfairly and insultingly referred to as "shirkers." It is no secret that it was necessary to resort to their services owing to the fact that the state and inter-kolkhoz construction organizations had no time for such small installations. Nor are such orders being handled by the domestic service or by the construction subunits of farms. Nevertheless, the work of hired construction brigades often aroused various types of criticism and prohibitions, with an atmosphere of distrust and suspicion being created around them.

Today private labor activity is being surrounded by a legal framework and the atmosphere of lawlessness which surrounded it is being broken up. This also applies to other types of private labor activity.

For example, the repair and technical servicing of motor vehicles and other items of private transport equipment are authorized for carrying out within the framework of private labor activity. It is hoped that this will facilitate concern for the large army of rural automobile fanciers who, distinct from city-dwellers, are deprived of the opportunity of utilizing the services of the motor vehicle service.

At the discretion of the executive committees of local soviets of workers' deputies, occupations such as the baking of cookies and the preparation of national dishes and many others, which are popular in many regions of the country, will obviously be authorized.

[Question] One particular question often appears in letters sent in by our readers: does private labor activity include the growing on private plots or garden tracts of planting stock (seed, seedlings, cuttings and so forth) and fruit, berry, vegetable and decorative crops? This is by no means an idle question. The fact of the matter is that these are all deficit materials today. Meanwhile, people engaged in the raising of planting stock and selling it at market prices are often accused of money-grubbing and attracted by unearned income and incorrect use of the land. Such a negative attitude is displayed by those who sell pedigree young animals and the eggs of rare strains of birds.

The production on private plots of planting stock and young animals and poultry is not categorized as private labor activity. It is regulated by legislation and normative documents dealing with the private economy, collective horticulture and gardening.

The state encourages the development on private plots of orchards, berry patches, vineyards, decorative trees and other green plantings. Existing legislation contains no prohibition against the growing of planting stock (seed, seedlings, cuttings and others) on private plots or garden tracts. Nor is there any prohibition against the raising or sale of pedigree young animals or the eggs of rare birds.

Moreover, it bears mentioning that the selection of the agricultural crops to be grown on a private plot depends upon the land users themselves. In any case, legislation does not limit the sowings of food and forage crops on private plots, with the exception of the cultivation of opium poppy, jute and other narcotic and poisonous plants. Special authorization is needed for cultivating these plants at specialized farms for medicinal and scientific purposes.

[Question] Let us assume a truly realistic situation: a kolkhoz or sovkhos needs to photograph on an urgent basis certain farm or cultural domestic objects for an exhibit. Or a small motor vehicle is in need of repair work. The local domestic service does not undertake to carry out the order. Could the kolkhoz administration or sovkhos board of directors turn to a private individual or to a skilled craftsman for assistance?

[Answer] In the law governing private labor activity, emphasis is placed upon the fact that the state encourages citizens engaged in private labor activity entering into contractual arrangements with state, cooperative and other social enterprises, institutes and organizations. It would seem that in the cases mentioned by you, a kolkhoz administration or the board of directors of a sovkhos could conclude contracts with persons engaging in private labor activity. Such activity can and must be employed in the interests of the public economy.

In behalf of the readers of this journal, we thank you for your explanations. They are especially timely in view of the fact that the law governing private labor activity is presently being implemented. And here a great deal depends upon a correct understanding and intelligent use of it, from an attentive and interested attitude to the development of this form of labor from the standpoint of state institutes and local organs of government.

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PARTY AKTIV EXAMINES ALTAY KRAY APK POOR PERFORMANCE

Moscow PRAVDA in Russian 27 Apr 87 p 2

[Article by V. Somov, special correspondent: "Face the Economy, On the Meeting of the Party-Economic Aktiv in Altay Kray"; first paragraph is source introduction]

[Text] Spring has finally arrived even in Siberia. In a few days machinery will be heard on the Altay fields, planting seeds in the soil wet with April rain. The future harvest, the responsibility of grain growers and farm foremen for the agrarian economic situation was the topic of a meeting of the kray party-economic aktiv. The reason for the detailed discussion was the CPSU Central Committee Decree "On the Organizational Work of the Altay CPSU Kraykom Concerning the Introduction of Cost Accounting [khozraschet] and Progressive Forms for Work Organization into Agricultural Production." The Central Committee unfavorably evaluated this work.

The Altay's grain fields have lost their former strength. Grain has long been considered the kray's main wealth, however, the purchase plan has not been fulfilled for many years. At most farms yields per hectare have declined 1.5-2 fold. During the past five-year plan growers only averaged 11 quintals. True, last autumn the grain procurement target was met. But many animal farms went without grain feeds.

What explains the scanty yields? They have started treating the land without respect here. I. Poletayev, chairman of the Aley Kolkhoz in Tretyakovskiy Rayon put it vividly at the meeting "the kolkhozniks have been depeasantized [raskrestyanilsya] and have ceased to be farmers [khozyazin]". This results in low technological discipline and obvious oversights. It is felt that zonal systems of crop production have been mastered and, in particular, that the optimal amount of fallow is about 1 million hectares. What is the return? Average increaments of 1 quintal. Is letting huge expanses of land go unused worth this?

The extensive path now being taken by agriculture in the republic has led to disappointing results. In the last five-year plan not only the plan for grain sales, but also those for meat and industrial crops were not met. Although the main stocks during these years increased by about 2 billion rubles (1.4 fold) the increase in output was only 91 million rubles. This is a low return per

hectare if compared to the productivity of land in West Siberia. The labor productivity indicator lags behind most oblasts.

However, the pay of Altay leaders does not lag behind the neighbors. Less output, but more earnings. There was a comparison of payments to labor on farms in Kytmanovski, Liktevskiy and Pavlovskiy Rayons. They were higher on lagging, money losing farms than on pace setting ones. Here is another comparison. Labor productivity in Novichikhinskiy, Soltonskiy and Shelabolikhinskiy rayons is 40 percent lower than in Biyskiy Rayon. However, payments to labor are 11 percent higher.

There is complacency and a parasitical attitude where payments to labor exceed gross income. This is how they farm at The Rassvet Kolkhoz in Krutikhinskiy Rayon, which has never been in the front ranks, and in Kamenskiy Rayon. Practically all the income is "eaten up" by kolkhozes and sovkhoses in Pavlovskiy, Zarinskiy, Pervomayskiy and Uglovskiy rayons.

F. Popov, first secretary of the Party Kraykom, summed it up, "What is the way out? Everything earned, and even everything obtained from the state in the form of assistance is eagerly 'eaten up'."

There were many discomfoting facts and figures in the report. Production costs are increasing. Last year they rose in 23 rayons and were higher than planned in almost the entire kray. Indebtedness to banks is also continuing to increase. In 1986 loses due to bad management were 229 million rubles. True, most kolkhozes and sovkhoses are now profitable. However, as was pointed out at the meeting, profits are mainly due to price markups given to lagging farms.

What is the way out? How can the situation be straightened out? Many participants asked this question. They came to one conclusion: rapidly master economic methods of farm operations.

This is all the more important because there is experience in intensive farming in the kray. There were interesting presentations of this by I. Anton, link leader at the Khleborobniy Sovkhoz, G. Borisova, milkmaid at the Put k Kommunizmu Kolkhoz in Kiskhinskiy Rayon, and S. Zhelyabovskiy, link leader at the Druzhba Sovkhoz.

N. Kustov, first secretary of the Rodinskiy Raykom noted, "Contracts and cost accounting can have a huge effect. However, far from all of us understand this. Percentomania also harms the situation."

This is an accurate comment. Party organizations have not overcome a campaign attitude with respect to economic questions. There is weak organizational, educational and ideological support for success. This is the reason for the results. The account books for unregulated brigades on cost accounting in the kray are completely up to date. Three-fourths of the arable land and almost as much the animals are said to be attached to them. One hundred percent coverage by contract has been reached on farms in Bayevskiy Rayon, for example. However, if this is true why are losses steadily increasing? Or take Krutikhinskiy Rayon. Here 75 percent of the cows are attached to contract

links. However, these collectives produce only half as much milk as ordinary farms and labor productivity is one-fourth lower.

Unfortunately, such indicators are not the exception, but the rule. What do contracts give to kolkhozes and sovkhoses in the kray? The experiences of link members who spoke at the meeting are a small island in a shoreless sea of formalism in which contracts and cost accounting are drowning. Frequently no party influence is felt at such collectives. Committees and buros give little attention to creating a healthy climate or psychological compatibility at brigades and links. In the kray as a whole, the productivity of cows in unregulated units is only 12 kilograms higher and yields from grain crops, sugar beets and other crops are no higher.

What then is the impetus from the numerous seminars, meetings, conferences and other measures which are conducted in the kray, following the party and agroprom line? At the aktiv meeting it was justifiably noted that formalism detracts from the "tireless" activities concerning the mastery of contracts.

Participants came to this conclusion. Party, soviet and operating organs have still not transferred their work to labor collectives. Decisions made by the kraykom and raykoms are not always handed down to primary party organizations nor are they put into practice. Committees and buros often do not manage the economy through people, but through paper.

Contracts and cost accounting remain only in summary reports, therefore they have no real influence upon production. Speakers pointed out that working for a favorable report was firm resistance to restructuring.

Cost accounting and contracts are frequently mentioned together. In practice they are weakly linked. How common is this? Excessive resources are consumed and workers receive bonuses. This is a convincing fact from a report. Last year for each 1 rubles in wages crop growers and animal husbandry workers each received 61 kopecks in additional payments, managers and specialists at kolkhozes and sovkhoses received 79 kopecks and workers in the RAPO apparatus received 65. Production costs in the kray increased by 8 percent, or by 150 million rubles.

A speaker noted, "We are working at a loss, but still receive bonuses."

Cadre reshuffling hinders the mastery of economic methods in farm operations. Last year alone in Shelabolikhinskiy Rayon almost half of the managers were replaced and in Zalesovskiy and Klyuchevskiy rayons 1 out of 3 production commanders. As was stated at the meeting, there is a milling of cadre.

The direct and impartial criticism gave the meeting a sharpness and urgency. Many party workers and farm officials were cited for being at fault or negligent for putting the kray deep in the hole. The serious breakdown in the economy is on the conscience of all kray party organizations, above all the kraykom apparatus. The kraykom, its buro and secretariat were insufficiently engaged in organizational and ideological support to restructuring the agrarian economy. The implementation of decisions was weakly monitored. Party workers at the rayon level were also criticized for similar oversights.

However, today it is clearly insufficient just to enumerate shortcomings. Criticism should be constructive so that people will know their specific failures.

The speakers could have more precisely delineated the place and role of party organizations in restructuring the agrarian economy and mastering the new economic mechanism, looked more broadly at cost accounting relations and problems in the independence of rural managers. All chairmen and directors are convinced that until they have actually acquire genuine rights cost accounting will remain merely a nice wish.

Just who is still encroaching upon managers' independence? Many party and agricultural organs are still not cured of the virus of administrativism. There should be a clearer view of the place of the krayagroprom and the RAPO in mastering economic methods of management. Restructuring at the rayon level is not moving easily. There are quite a few difficulties in mastering the normative method of planning, while intersector ties are slowly being improved. Contracts and cost accounting won't "skid" along by themselves, but only with the entire economic mechanism. Party workers are now excessively interested in technological questions and in taking polls. Not enough attention is given to the human factor and direct contact with people.

The meeting showed that the kray party organization soberly evaluates the situation at the agroprom. It has sufficient strength, energy and creative potential to transform the braking mechanism into an acceleration mechanism. That is, to restructure the work of party, soviet and operating organs as required by the January 1987 CPSU Plenum and the CPSU Central Committee decree on organizational work at the Altay Kraykom.

I. I. Skib, head of the CPSU Central Committee Department on Agriculture and the Food Industry, spoke at the meeting.

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MOSKVA AGRO-INDUSTRIAL COMBINE DESCRIBED

Moscow EKONOMICHESKAYA GAZETA in Russian No 19, May 87 p 11

[Article by F. Bogomolov and N. Dudorov: "From Production to the Customer, On the Organizational Origins of the Moskva Agro-Industrial Combine"; first paragraph is source introduction]

[Text] The specific tasks and goals of all the country's agro-industrial combines which have started working are in essence the same: unite the production, processing and sales of agricultural production and high quality foodstuffs. At the same time each combine has its own features. What is the principle difference between the Moskva Combine and similar formations and rayon agro-industrial associations?

Yevgeniy Sergeyevich Rychin himself posed this question and began the discussion by answering it.

For example, at the Ramenskiy Agrocombine, which has already been discussed in this weekly, agricultural production organization is based on a single rayon. In this respect it does not differ from any RAPO. In the creation of the Moskva Combine the composition of farms and processing enterprises was determined by another principle. It includes sovkhoses, kolkhoses and other enterprises from several rayons in the Moscow area, primarily those with growing produce on covered ground. Also, to assure the needed assortment the combine also includes some other enterprises. In particular the Moskovskiy Sovkhoz in Leninskiy Rayon, with its large areas of greenhouse produce production, practically all farms in Lyuberetskiy Rayon, where the Tomilinskoye Poultry Association is located. This latter includes three poultry factories, a dairy plant, a poultry combine, and industrial combine, the Rubin nonalcoholic drink firm and several construction organizations.

Four sovkhoses within the Moscow City Line have also been included in the combine: the Marfino, Teplichnyy, and imeni Maksima in Gorkiy Rayon and the imeni Mossovet. The combine also includes the very large Yuzhniy Sovkhoz, located in the Karachayevo-Cherkess Autonomous Oblast om Stavropol Kray. It will supply early tomatoes and peppers to the capital.

Another feature of the combine is that it does not have large areas of land, only a little more than 6,000 hectares of arable land. Sovkhoses within the

Moscow city line grow produce under covered ground The Tomilinskoye also has only small amounts of land and the Moskovskiy Sovkhoz not more than 1,500 hectares of arable land.

ACCORDING TO THE PRINCIPLE OF CONCENTRATION

The combine includes a number of old and newly created enterprises and organizations located in various places. There are also design, construction and transport organizations and scientific units. In short, the Moskva is an operational-economic complex with more than 20,000 workers.

The Moskva Combine is not based upon the territorial principle, but on the concentration of several large greenhouse farms under a single management.

We asked Ye. S. Rychin if this has justified itself:

He said, "In our opinion it has, the combine's task is to deliver produce to all-union and republic stores in Moscow. Previously some units were engaged in produce growing, some in procurement and storage and others in sales. These three organizations had interests which did not always coincide, giving rise to a whole series of problems, the main one being breakdowns in produce supply.

While in a RAPO each farm and processing enterprise acts as a seller of its own products, the combine is also completely responsible for delivering products to all-union and republic stocks on time and meeting quality and assortment requirements.

The combine is given targets for payments to the budget and allocations from the budget, general funds (norms) for payments to labor, and material-technical supplies. All remaining indicators are approved by the combine.

As with all similar formations, centralized funds are created for the Moskva: production development, social-cultural measures and residential construction, material incentives, reserve and others. Here is the procedure for their creation. The centralized fund for production development and the reserve fund are formed through deductions from profits (net income) of kolkhozes (with their agreement), sovkhoses and other organizations in the combine. The social-cultural measures and residential construction fund and the material incentives fund are formed through deductions from similiar funds in enterprises and organizations making up the combine. Norms for deductions and procedures for spending them are determined by the combine council.

RIGHTS AND OBLIGATIONS

The combine council gives production targets to sovkhoses and kolkhozes, processing enterprises and other enterprises and organizations. Agricultural products purchased on contract through interdepartmental and interrepublic ties are counted towards fulfilling the plan of the farm where they were purchased.

An important element in the combine's activity is making scientific-technical forecasts on raw material problems and in supplying such materials to enterprises processing agricultural products. The council approves plans for research work by scientific units in the combine. Scientific research and design organizations not in the combine can be contracted to do such work.

An agroindustrial combine should work on self-financing principles. This is the place for a few words about how prices for products will be set. Sales to all-union and republic stores in accordance with plan targets are made at approved state prices. At the same time, products sent to the combine's own trade network, to markets and other customers are priced by the combine council taking into account quality, packaging and consumer demand. Prices should compensate for costs of production, storage, processing and transportation and the accumulation needed for production expansion.

The council sets prices for products sold within the combine and sets rates and charges for services rendered. Products purchased from other departments or republics are priced at state and contract prices, while those purchased from the combine's own sovkhoses and kolkhoses and other enterprises and organizations are at purchase prices for products and raw materials plus all types of markups, supplementary payments and rebates in price lists and standard forward contracts.

The first steps in the combine's organizations were not easy. It was immediately necessary to modernize many facilities. Large transportation and construction and other enterprises had to be created anew. This made for tension in the combine's work.

However, perhaps the biggest problem was the severe lagging of storage, processing and sales facilities and their inappropriateness to high levels of production intensiveness at combine farms.

The combine included economically strong kolkhoses, sovkhoses and other agricultural enterprises. They had highly productive animal and crop operations. The elements linked to procurement, processing, storage and delivery require radical restructuring and, in some cases the creation of new capacity with modern equipment. Combine management's attention has now focused on this.

The agroindustrial combine's work can be judged by the quality of products in stores. Unfortunately the path from production to customer remains very difficult. The sales of lettuce, dill and green onions in repackaged form is especially poor. Demand for them is huge, especially in the beginning of spring. "If we could sell these products in repackaged form," said Ye. S. Rychin, "then trade standards would be improved and many more customers would be satisfied. When they are sold by fixed weight, customers often have to buy more than they need of, for example, dill or lettuce."

As soon as we start reorienting some greenhouse farms towards raising green crops, then the repackaging problem will be even more difficult.

There is much to be done in organizing trade. Sales people have little interest in protecting the commercial appearance of produce and in selling as much as possible. There are still attempts to reject produce as not being fit for sale. One cannot exclude the possibility of all sorts of machinations here.

HOW TO INCREASE SALES VOLUME

Because of insufficient processing enterprise capacity sales volumes cannot be sharply increased. Take this example. The combine's confectionary factory can produce 3,000 tons of sunflower seed halva. This product does not stay long on store shelves. Specialists assert that, having the raw materials, the combine could only supply the Moscow area public's demand for halva. The problem is that production technical standards prevent increasing the production of a high quality halva.

Processing enterprises are now being actively constructed. A large poultry processing unit will soon go into operation at the Tomilinskoye Poultry Raising Association. It will produce 1,500 tons of preserved meats annually. The network of trade enterprises is rapidly expanding. For example, the Belaya Dacha Sovkhoz opened its own store in Lyubertsy. Other farms also plan to develop trade.

To assure the combine's full blooded production activity it is necessary to have precisely organized material-technical supply. There are still shortcomings and difficulties in this matter even after the creation of the combine. We will give a few examples.

Repair and rebuilding work is under way at the combine's greenhouses. Every year 6-8 hectares must be rebuilt. This is a lot of work and it is difficult to enlist any contract organization to do it. The combine set up its own design-construction trust doing 30 million rubles worth of work annually. However, it was difficult to find equipment for it. It turned to all-union and republic gosagroproms, but the results were not very comforting.

Not everything is smooth with sales planning. Managers and specialists complain that they are sometimes given targets which do not correspond to self-financing principles. Economically unjustified deliveries of parsley and celery are planned for the combine. It is necessary to stop the cucumber harvest 3 months early in order to free area for these crops. While each square meter yields 15 kilograms of cucumbers it only produces 4.5 kilograms of celery. Even if sold at 70 kopecks a kg celery will still lose money.

Economists say that it is necessary to have more independence in determining sales volume and structure assure the required profit levels.

Obviously, it is necessary to have independence in solving production tasks. However, it is also important not to forget about responsibility for final results. After all, the combine was created to supply the capital's population with a broad assortment of various foodstuffs. In the final account, the customer's interests should be first. Undoubtedly, independence assumes more complete use of potentials for organizing efficient, highly profitable production. This is a matter for the entire collective.

11574
CSO: 1824/251

FIELD, WEATHER CONDITIONS IN BELORUSSIA

Extreme Early Winter Cold

Minsk SELSKAYA GAZETA in Russian 10 January 87 p 1

[Text] The current wintering of the crops in Belorussia is characterized by extremely difficult weather conditions for agriculture. The end of December and beginning of January were very cold. The average daily temperature of the air was 10 to 15 and, in the last 5 days, 18 to 24 degrees below the average long-term values, measuring 25 to 30 degrees [below zero, Celsius]. In the nighttime and morning hours, the air cools to 30 to 35 degrees and to 36-38 degrees of frost in the eastern part of the republic.

By this time, the fields had a snow cover of 10 to 20 centimeters, which by and large protected the crops against the effects of the low temperatures. But since the snow lies unevenly and was less than 10 centimeters deep in places in Minsk, Grodno and Brest oblasts, there are fears of damage to poorly developed plantings of winter crops, clovers and other wintering crops. It is therefore essential for all kolkhozes and state farms of the republic to take growth samples by the established time of 25 January to determine the viability of the plants.

Such frosts are dangerous for fruit trees and bushes, especially young seedlings. There may be damage to growth and flower buds as well as to the annual growth on sweet cherry, cherry, plum and pear trees and on less cold-hardy varieties of apple trees.

The intense frosts greatly complicate the wintering of livestock. It is therefore essential to take measures to heat their enclosures and water sources and to provide a full feed ration for the animals.

The cold weather will continue over the next 2 or 3 days.

Late Winter Snow Cover

Minsk SELSKAYA GAZETA in Russian 18 Mar 87 p 1

[Text] Snow still lies on the fields. Freezing temperatures prevail at night and in the morning. The minimum temperature of the air falls to 10 to 15

degrees and to 18 degrees in the east. During the daytime hours, however, the air warms to zero to 5 degrees above zero, the snow melts and the sound of dripping can be heard. The approaching spring is more and more apparent.

There was a prolonged period of intense frosts and raging snowstorms during this winter. The result of this is the existence of a deep snow cover and the freezing of the soil. At the present time, the snow is 30 to 40 centimeters deep in Vitebsk and Mogilev oblasts, in a large part of Gomel Oblast and in the northeast and central rayons of Minsk Oblast. In the rest of the territory, it is 10 to 25 centimeters deep. Only in the south of Brest Oblast and in places in the west of Grodno Oblast is there little snow, 2 to 5 centimeters. In the extreme south of Brest Oblast, the snow cover has disappeared from the fields or lies only in places. The depth of the freezing of the soil is 40 to 80 centimeters in a large part of the republic's territory and reaches 1 meter in places in Vitebsk, Minsk, Grodno and Brest oblasts. A shallow freezing of the soil to 15 to 30 centimeters is noted in individual rayons of Gomel Oblast.

The workers in the fields are interested in how the young crops will come out of the winter. Based on an analysis of the winter conditions and the results of the growing of samples of winter crops performed twice during the winter, it is expected that by the time of the renewal of the growing season the plants will mostly be in good condition. This is explained by the fact that snow reliably protected the crops during the period of the very intense cold.

But the good results of the wintering still do not give reason to conclude that everything is totally satisfactory in the state of the winter crops. To a considerable degree, it will depend upon the nature of the development of the spring processes. In connection with the fact that there is much snow on the fields, the plants will come out of the winter in a weakened state in a number of places and will need supplementary feeding. In the rayons where the soil is frozen to a considerable depth and where there is a deep snow cover, especially on heavy soils, there is the probability of the crops perishing from excess moisture during the time of the spring snow melt. It is therefore necessary to take measures to drain off the water from the snow melt.

Delayed Arrival of Spring

Minsk SELSKAYA GAZETA in Russian 28 Mar 87 p 1

[Text] Usually by the end of March in Belorussia, the average daily temperature of the air becomes positive everywhere and the fields become free of snow. This year, the spring is in no hurry to please us with warmth. At the present time, the average daily temperature of the air ranges from 0 degrees in the southwest to minus 5 degrees in the eastern part of the republic and the maximum temperature does not exceed 0 to 5 degrees above zero. The snow is melting very slowly. In the northeast half of the republic, the snow cover is very deep--primarily 30 to 40 centimeters and up to 50 centimeters in places in Gomel Oblast. Its depth ranges from 5 to 25 centimeters in the remainder of the territory. And only in the majority of the rayons of Brest Oblast has the snow disappeared from the fields or does it

lie only in places. An intensive thawing of the soil is not yet being observed.

It should be noted that in a number of eastern rayons of the republic the deep snow cover (more than 30 centimeters) has already lasted for 60 to 70 days. The winter crops may perish in places here and the plants will come out of the winter very weak. For this reason, farmers must organize the timely and correct care of the young crops.

Wet Soils Prevail

Minsk SELSKAYA GAZETA in Russian 16 April 87 p 3

[Text] In recent days, the republic has had sunny weather without precipitation. The maximum temperature of the air ranges from 7 to 12 degrees. The nights, however, continue to be cold, the air cooling to 0 to 5 degrees below zero.

The soil is still very or excessively moist in a large part of the territory of the republic and snow is observed in places on the fields of the extreme east of Vitebsk Oblast. The upper layer of the soil is adequately moist almost everywhere in Brest Oblast, the western rayons of Grodno and Gomel oblasts, and the south of Minsk oblast. The temperature of the soil at a depth of 10 centimeters ranges from 3 to 7 degrees here.

Renewed growth of winter crops and perennial grasses has been observed in Brest Oblast, a number of rayons of Gomel Oblast and in places in Grodno Oblast.

At the present time, the sum of positive temperatures ranges from 10 degrees in the northeast to 85 degrees in the southwest of the republic. About 100 degrees have accumulated in the extreme southwest rayons of Brest Oblast. Here it is the optimum time for supplementary feeding of the winter crops.

Advance of Spring Noted

Minsk SELSKAYA GAZETA in Russian 18 Apr 87 p 1

[Text] We are now in the second half of April. Usually by the this time the average temperature of the air in Belorussia is steadily rising past +5 degrees and nature is actively awakening. At the present time, the average daily temperature has reached 6 to 7 degrees only in the southern rayons, being in the range of 3 to 5 degrees in the rest of the territory. As of 16 April, the sum of positive temperatures was 25 to 75 degrees in most of the territory of the republic and 80 to 115 degrees in the southwest. This is within the normal range for the most part but is 25 to 40 percent below normal in Gomel and Mogilev oblasts. The accumulated warmth is 30 to 60 degrees behind last year and is 80 to 115 degrees less in Gomel Oblast.

The zone of good moisture in the upper layer of the soil expanded. At the present time, it takes in Brest, Grodno and Gomel oblasts and the southern

half of Minsk Oblast. The temperature of the soil at a depth of 10 centimeters is generally 4 to 7 degrees here. In the rest of the territory, the soil continues to be very or excessively moist. This spring it is maturing about on time. Only in Gomel Oblast have favorable conditions for the sowing of early spring crops been delayed by 7 to 10 days.

The renewal of the growth of winter crops and perennial grasses was noted almost everywhere in the southern as well as the northern half of the country. This basically took place at times close to the long-term averages and about 5 days later than normal in the south. The swelling of the buds of fruit trees and bushes has begun in the southwest rayons of Belorussia.

Cold Delays Crops

Minsk SELSKAYA GAZETA in Russian 22 Apr 87 p 3

[Text] It cooled off in Belorussia on 18 April. There was a very cold flow of air from the northern regions of Scandinavia. Everywhere there was precipitation in the form of rain, wet snow and snow. A temporary snow cover of 1 to 3 centimeters formed on the fields in some places in Vitebsk, Minsk and Gomel oblasts. In places, the fall of precipitation was accompanied by strong winds of up to 15 to 21 meters a second. The average daily temperature of the air fell to minus 1 to plus 1 degree, which is basically 5 to 8 degrees below normal, and a maximum temperature of the air above 1 to 5 degrees was not observed. Only in the southwest of the republic did it rise to 6 to 9 degrees. The minimum temperature of the air during the nighttime and morning

hours was 2 to 6 degrees below zero. The temperature of the soil at a depth of 10 centimeters generally fell to 1 to 5 degrees.

The cold weather is retarding the development of winter crops, grasses and fruit crops. Nor does it favor the drying out of the soil. As a result of the negative nighttime temperatures, a frozen crust formed on the top of the soil, which hindered field work during the morning hours. Only in the southwest of Belorussia were conditions favorable for this work. In places in Brest Oblast, however, where a 2 to 5-centimeter layer dried out and wind gusts reached 19 to 21 meters a second, dust storms were observed. This led to the blowing away of the seeds of spring grain crops.

In connection with the very cold weather in the last 3 days, the accumulation of positive temperatures slowed. As of 20 April, most of the rayons of the republic accumulated 30 to 80 degrees and, in the southwest, they accumulated 85 to 130 degrees. This is 40 to 60 degrees below normal and 15 to 30 degrees below in Brest Oblast. On this date last year, there were 50 to 70 degrees more warmth.

No significant changes in the weather are expected in the next 3 days.

Crop Delays Detailed

Minsk SELSKAYA GAZETA in Russian 30 April 87 p 3

[Text] Spring this year has been unusually protracted. The transition of the average daily temperature of the air beyond +5 degrees was delayed by 10 to 20 days in comparison with the long-term average dates and not until 28 April did the average daily temperature of the air begin to rise above 5 degrees everywhere. Such a cold April as this year has not been observed in the last 30 years. The last time the April weather was analogous was in 1954.

The sum of positive air temperatures on 29 April was 40 to 80 degrees in the northeast half of the republic and 100 to 180 degrees in the southwest half. This is 60 to 100 degrees below normal in the largest part of the territory and 30 to 50 degrees below normal in the southwest.

The renewal of the growth of winter crops was delayed by 2 to 3 weeks in most rayons of the northern half of the republic. The seeds of spring crops are slow to germinate. The sprouting of barley and oats 14 to 16 days after sowing has been noted only in places in Brest Oblast and in the West of Gomel Oblast.

The upper layer of soil has good moisture in the largest part of the territory. Its temperature at a depth of 10 centimeters is 5 to 7 degrees and up to 10 degrees in the south. The soil is excessively moist in most rayons of Mogilev Oblast, in a number of rayons of Vitebsk Oblast and in the northwest of Minsk Oblast.

Based on the protracted cold spring, the slow renewal of growth of winter crops, especially in the northeast rayons of the republic, the weakened processes of nitrification and the small amount of available forms of nitrogen in the soil, it is essential to activate the work on their supplementary feeding with nitrogen fertilizers. Under these conditions, the sowings of spring grains, flax, vegetable root crops and other agricultural crops have a longer presprouting period. At the same time, weeds develop intensively. It is therefore essential to pay the most serious attention to presprouting harrowing and other technical agricultural methods of caring for crops and combating weeds.

Warmer Weather Arrives

Minsk SELSKAYA GAZETA in Russian 6 May 87 p 3

[Text] The warm-up occurring on 29 April spread to the entire territory of the republic and strengthened. The average air temperature in the first few days of May rose to 15 to 17 degrees, being 4 to 7 degrees above normal.

The upper layer of soil has good moisture in most rayons of the republic. Under the influence of dry weather, the 10-centimeter layer is already seen to be only slightly moist in places in Brest, Grodno, Minsk and Vitebsk oblasts. The temperature of the soil at a depth of 10 centimeters is 10 to 15 degrees.

As of 4 May, winter crops were in the growth phase everywhere. In the southern half of the republic, the sprouting phase was noted about 1 week later than the long-term average date. In places in the northern half, this phase came at about the usual time. Shoots of spring crops sown prior to mid-April appeared with 16 to 18 days. In later plantings, the length of the period from sowing to shoots declined to 8 to 12 days as a result of the warm weather. The warm weather favored the development of spring processes of fruit crops. The swelling of their buds was noted in the southern half and in places in the northern half of the republic.

As shown by calculations and an analysis of the existing and expected agro-meteorological conditions, the blooming of cherry, plum and pear trees is expected between the 16th and 20th of May in most of the territory of the republic and between the 11th and 15th of May in Gomel and Brest oblasts and in the extreme south of Grodno and Minsk oblasts. The apple trees will bloom between the 20th and 25th of May and between the 26th and 28th in the north. In the northern half, these times are close to average and they are about 5 days later than normal in the southern half. The probability of frosts during the expected times of the blooming of the orchards is not great, being 10 to 20 percent (once or twice in 10 years).

The relatively warm weather will persist during the next 2 days, in places with brief rainfall. The maximum temperature of the air will be 15 to 20 degrees and 18 to 23 degrees in Gomel and Mogilev oblasts. The minimum temperature at night will be 6 to 11 degrees. It is expected to cool off beginning on 8 May. The air temperature will fall to -1 to +4 at night and will be 10 to 15 degrees during the day.

The higher air temperatures at the end of April and beginning of May caused intensive growth of weeds on the fields of winter and spring grains, legumes and other crops. To combat weed growth effectively, it is necessary to make extensive use everywhere of presprouting harrowing of spring grains, legumes, sugar beets, root crops, corn, potatoes and other crops and harrowing of the shoots in the phases: three true leaves and beginning of bushing out for grain crops, three to five leaves for peas and vetch, rosettes for lupine, and three to four leaves for corn.

It is necessary to inspect the plantings of winter wheat and rye and, depending upon the degree of weediness and the prevailing types of weeds, to use the most effective herbicides in the recommended doses during the phase when the crops bush out. Where the formation of stems of winter rye has been noted, it is time to apply retardants. The warm weather and high moisture content of the soil have produced strong development of root rot in the plantings of winter rape at a number of places. Farm specialists should make a detailed inspection of the rape plantings. In each specific case, they, together with specialists in plant protection, should establish the degree of development of diseases, damage and plant loss and determine the specific use of the crops. Perished plantings of winter rape must be replaced through spring rape.

Where shoots have appeared on flax in the southwest rayons of the republic, it is necessary, depending upon how infested they are with flax fleas, to treat the edges or the entire fields with insecticides.

Cold, Rainy Weather

After very warm weather, it cooled off on May 7 beginning in the northwest rayons. As time went on, the cooling trend spread to the entire republic and intensified. On 8 May, the average daily air temperature was 3 to 5 degrees, being 7 to 9 degrees below normal, and a daytime temperature higher than 4 to 7 degrees was not observed. On 10 May, the coldest night, the minimum temperature was 0 to 5 degrees and light frosts were noted in the air in places in the north of the republic. In Vitebsk and Minsk oblasts, the surface of the soil and peat bogs of the Wooded District cooled to 0 to -3 degrees. There was precipitation everywhere and it was in the form of rain and wet snow in a number of rayons.

The increase in warmth progressed slowly. On 10 May, they had accumulated 80 to 100 degrees of effective temperatures above +5 degrees and 110 to 120 degrees in the southwest. This is 20 to 50 degrees below normal in most rayons and close to normal in the northern part and in the extreme southwest. On the same date last year, there had been 70 to 100 degrees more warmth and 110 to 140 degrees more in the southern part.

The rainy and cold weather complicated the performance of field work and delayed the normal development of agricultural crops, fruit trees and berry bushes. But the lower temperature pattern helped to accelerate the spring crops. As of 10 May, shoots had appeared on them in most rayons. In individual southern rayons, a third leaf was noted on sowings made in the first half of April. Stem growth is observed on winter rye and on winter wheat in the southern half. The plants are 10 to 20 cm high and 25 to 30 cm in a number of southern rayons.

The unfolding of the first leaves for fruit crops has begun almost everywhere in the southern half of the republic and in places in the northern half. In the south of Grodno and Brest oblasts, the separation of buds has been noted on apple and pear trees and currants bloomed.

To prevent damage to sugar beet sprouts by root rot under this spring's conditions, it is essential to harrow the crops before and after sprouting (no earlier than the phase of the first pair of true leaves).

Clover is observed to be sprouting shoots almost everywhere and the grasses are growing out on the meadows. The plants are 5 to 10 cm high in the northern half and about 10 to 15 cm in the southern half. Last year the grasses were 5 to 15 cm taller.

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FIELD WORK IN KRASNODAR KRAY SURVEYED

Preparations for Spring Work

[Moscow PRAVDA in Russian 8 Apr 87 p 1]

[Article by K. Aksenov, PRAVDA correspondent]

[Text] Krasnodar Kray--In spite of difficulties, engineering services, mechanics and machinery operators at kolkhozes and sovkhoses have generally done a fairly good job in preparing for spring work. Innovators precisely prepared wide span hitches for planting sugar beets, corn and sunflowers. New sprinklers are now working on intensively farmed winter crop fields. All units on the night shift are crewed. The people working the fields are surrounded with attention. They are provided with tasty meals and other services.

In short, much has been done for the future harvest. As usual, there is special concern about wheat, the Kuban's main wealth. Several traditional agronomic measures have been reexamined in the kray. This year, for example, the agroservice exercised guardianship over equipment repair and the planting of winter crops. As a result, the fields are a joy to look at. Growers have one goal, to make last year's high yields stable occurrence. Thus, farms in Leningradskiy Rayon decided to obtain 46-47 quintals of grain per hectare and increase gross harvest to 250,000 tons.

What is the concern? It would seem that cost accounting and self-support principles should give managers, specialists and machinery operators at kolkhozes and sovkhoses room for initiative and creativity. In actuality, the Kray Agro-Industrial Committee and some RAPO councils can still not renounce petty tutelage of "bottom" units. The paper flow is as strong as ever. At a Kraykom plenum recently, V. Robskiy, deputy chairman of the Krayagroprom was sharply criticized. After allocating mineral fertilizers to the region, agroprom specialists precisely "prescribed" the quantity and type of fertilizer to be applied to each crop. Local agronomists were bewildered: Could it be that they really didn't know how to use the chemicals to the greatest effect?

However, signs of renewal are everywhere, especially now in these busy spring days.

Krasnodar Spring Work

Moscow SELSKAYA ZHIZN in Russian 3 Apr 87 p 1

[Article by Yu. Semenenko: "A Wide Grasp"]

[Text] Krasnodar--The late spring delayed spring field work. Now, as soon as the soil dried out, machinery operators in the Kuban are making up for lost time. There is a lot of work to do: rapidly complete the top dressing of winter crops, plant 130,000 hectares of early grain and pulse crops, almost 200,000 hectares of sugar beets and 292,000 hectares of sunflowers.

To win time, everywhere work is being done in two shifts. Following the example of farmers in Timashevskiy Rayon, wide span equipment is being used on most farms.

Kuban machinery operators are now rapidly planting peas and perennial grasses and are completing top dressing and harrowing of winter crops. Top priority is given to intensively farmed fields in the Kuban.

Spring Work in Kuban

Moscow SELSKAYA ZHIZN in Russian 21 Apr 87 p 1

[Article by Yu. Semenenko, SELSKAYA ZHIZN correspondent: "The Kuban Betters the Deadlines: Wide Combine Units Are Being Used On the Kray's Fields in Two Shifts of Work"]

[Exerpts] After a three week delay, spring has come to the Kuban. A. M. Isaykin, chief agronomist at the Krayagroprom Crop Production Department, said that it is necessary to plant about 2 million hectares of various crops and "repair" about 160,000 hectares of winter crop.

"Taking into account the lack of time and the dry windy weather," he continued, "all equipment was engaged in this work. Emphasis was placed upon wide span and multipurpose equipment. Herbicides were applied only once to the soil and the surface was leveled by land planes. Operators are working in two shifts to prepare the soil. The flow line - cycle method of field work has been invaluable here."

What is it? Each unit performs a strictly specified operation.

Winter grain crops are the main ones for the Kuban. In general, they survived the winter quite well. Only a few fields had to be replanted. Peas, wheat and barley -- the better quick maturing varieties, were the main replacement crops planted in the spring. A large share of the winter killed wheat, about 50,000 hectares, will be replanted to corn.

Many technical and organizational innovations started their lives on the fields of the Order of Lenin winning "Kuban" Kolkhoz in Ust-Labinskiy Rayon. These include the autumn leveling of fallow, thus eliminating this operation in the spring and saving much time; the use of arrowshaped reinforced blades

and a harrow for preplanting tilling designed at VNIISR [Not further identified]. Each such unit can work up to 35-40 hectares per shift.

It is a rare day when the farm does not receive guests from farms nearby and far away. However, only a small share of the innovations seen on the farm are put to use on the spot. The reason being that nobody is morally or materially responsible for this. The situation is now changing radically. The "Kuban" has become the main enterprise in a production system for using intensive industrial technology. Contracts signed in March specify mutual obligations and make provisions to pay the main farm 10 percent of the value of additional output.

We met F. V. Krasiyev, the chief agronomist at the "Kuban" after he had returned from the Kolkhoz imeni Zhdanov.

"I once again examined some wheat fields and sections where beets and sunflowers are to be planted. I gave the neighbors some advice and checked to see how they were carrying out our recommendations. Now specialists from our farm are answering for work at their own farm and for those under their patronage. Concerns are increasing. However, there can be no doubt that results will be better," stressed Fedor Vasilevich.

Five production systems are now operating in the kray. The main farm has signed contracts for transferring, to farms under its patronage, experience in using intensive industrial technology for raising cereal crops, corn, sugar beets, sunflowers and perennial grasses.

This spring agricultural science has started playing a more noticeable role. Curator groups, staffed by various types of scientists, are attached to each rayon. They visit farms not as guests or uninvolved tourists, as previously, but as fully empowered representatives of applied science, and conductors of scientific-technical progress. At the Iskra Kolkhoz in Timashevskiy Rayon I met G. Ye. Gonik, head of the Industrial Crops Department at the Kuban Agriculture Institute. He had carefully examined how they were working the fields there, had given useful advice and, most importantly, helped implement these recommendations.

During these days I travelled from one end of the kray to the other and visited many farms. Here is my main impression: Growers are everywhere working in the spirit of restructuring and with a good creative attitude. Unfortunately, among some of the peculiar features of spring work definitely caused confusion and showed their inability to make tactical decisions. In particular, this is the impression made after getting acquainted with work in some farms in Starominskiy, Krylovskiy and Kushchevskiy Rayons. They do not give sufficient attention to moisture conserving tillage methods. Such errors can be costly.

Fertilizer Applications, Plant Protection

Moscow SELSKIYE ZORI in Russian No 3, Mar 87, pp 14-15

[Text] Since autumn all winter crops in the Kuban have sprouted, more than 60 percent of them are in good condition. The abundant precipitation during December-February caused growers to correct their work plans for the winter fields. The intended nitrogen top dressing for winter crops following the soil's thawing was changed to March. There were pressing deadlines during early spring. The situation is made more difficult because in many places there have been no top dressings since autumn. All the work, over 2 million hectares, must be done in the first spring month.

The timely top dressing of crops with ammonium nitrate, following data from scientific institutions and experience by progressive farms in the Kuban, guarantees 3 to 7 more quintals of grain per hectare. Poor crops must be given 40-60 kilograms per hectare, and well developed ones 30-35 (active ingredients). In special need of this is winter wheat planted after row crops where there was surface tillage. Such crops occupy about 800,000 hectares in the kray. Because of poor moisture availability during the autumn, the plants developed weak root systems in the soil's surface layers. Also, there was a weakened nitrification process. As a consequence, signs of nitrogen starvation have been noticed in the plants since autumn. The top dressing dosages of nitrogen are larger than on fields which have been ploughed.

In selecting methods for top dressing winter crops field moisture must be taken into account. Both aircraft and ground equipment can be used, but if the soil is dried out it is advisable to make root zone applications using grain drills. Root zone top dressings are especially effective on well developed crops where it is necessary, during the spring, to apply phosphorus in the form of compound powders.

There can be no errors as in previous years, where at many farms herbicides were applied after the optimal dates. Spraying herbicides on poorly developed crops prior to tillering heavily damages the plants and even leads to their death, while delays (during the stem extension stage) can cause sterility in some of the spikelets. Herbicides selection should be based on the species composition of weeds in each field.

It is now necessary to make a timely determination of measures to protect winter wheat from winter carabids, especially in the northern zone, where high damage rates from larvae are expected. Because in a number of rayons in this zone large areas of crops are poorly developed there should be constant monitoring for the onset of the carabid larvae active eating stage.

After winter ends, it is necessary to effectively protect grain crops from rodents, and to make corrections in plant disease prevention measures.

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LATE SNOWS DISRUPT ROSTOV OBLAST

Moscow IZVESTIYA in Russian 14 Apr 87 p 2

[Article by G. Gubanov, IZVESTIYA correspondent: "April Snow"]

[Text] Rostov-Na-Donu--In Don gardens and orchards onions and garlic had turned green, tulips had turned their leaves to the sun, machinery operators at kolkhozes and sovkhozes in Peschanokopskiy, Tselinskiy, Zernogradskiy and other southern rayons had begun field work 10 days ago. Wild ducks and geese were appearing in salt marshes and ponds. Rooks and ravens were building nests in the poplars. Suddenly the cold breath of winter was blowing in the steppe and streets. Snow fell all night in Rostov and throughout the oblast.

By midday a strong wind arose. The blizzard stopped traffic for a while. I talked toroad workers, officers at the oblispolkom and State Motor Vehicle Inspectorate workers. Everywhere there was concern.

Nobody could remember such a storm. It was mid April, spring crop planting had begun in the Don steppes and suddenly here was a strong snowstorm. Of course, the planting stopped. The main thing now was to get stalled buses and vehicles moving again.

The storm's first day was over. Near Taganrog bulldozers cleared the roads. Dozens of bulldozers were working north of Rostov.

Then for the second day the storm continued in almost all the rayons in Rostov Oblast. The road between Kamensk and Shakti was especially hit.

A. Rakhov, officer at the Oblast Motor Vehicle Inspectorate, said, "We had to reroute practically all of the traffic there. The problem is that the snow came so suddenly that more than 100 vehicles were stalled in the flat lands. Long into the night we tried to get them into towns. Some did not succeed in escaping from the snow. People spent the night out on the steppes.

On monday the roads to the northern part of the oblast, to Volgodonsk, Odessa and Zhdanov (and in other directions) were closed. All available equipment was thrown into the snow removal work, soldiers, workers and kolkhoz farmers helped. It was especially deep in the Morozovska area, where there were drifts

2-3 meters deep. Kolkhozes, sovkhoses and industrial enterprises brought their equipment to help the road workers. Trains were running 30-40 minutes late.

The stormy weather caught even experienced road workers unawares. For some time the gardens had been growing. Workers had removed the blades from tractors and started repairing bulldozers. In the cities many snowblowers had been reequipped to pump water for flower gardens. Apparently, blame should be placed upon those who are obligated to inform motor vehicle enterprise managers and the public about the approaching storm. Here, for example, is the weather report on the local radio station: "The temperature in the oblast is minus 2 to 3 degrees, storms, glare ice, rain in places, wind speed 10-15 meters per second, easterly gusts up to 28 meters per second. Visibility on roads, 2,000 and more meters." Did it turn out to be "normal"?

Not only was such information absurdly stingy, but was rarely and briefly broadcast. It gave no hint of the dangerous situation.

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ADAPTING FIELD WORK TACTICS TO THIS YEAR'S CONDITIONS IN BELORUSSIA

Measures for Increased Yields

Moscow SELSKAYA ZHIZN in Russian 30 Apr 87 p 1

[Article: "Belorussian Variant: Creative Search and Intensive Technologies Are the Main Reserves of Farmers in the Spring Planting"]

[Text] This year's late spring has shown that with good conditions and a good manager everything is done accurately and on time. Rossiya Kolkhoz in Dyatlovskiy Rayon of Grodno Oblast is one such farm. On the poor lands here last year, they threshed an average of 40 quintals of grain and this year they are counting on an additional increase. Advanced agricultural technology is making such an increase a real possibility. And the pace of the sowing campaign here is twice what it was last year. How was it possible to compress the time? On the high mast of the kolkhoz office is the flag of labor glory. It is dedicated to the brothers Pavel and Roman Kislyy and Leonid Dvoranin, who, in preparing the fields for sowing, are exceeding the performance standards by a factor of more than two using caterpillar tractors.

"Half of our tractor drivers turn out one and a half times the standard," kolkhoz chairman P.N. Svib told me.

The experience of Rossiya Kolkhoz has been utilized by all farms in Dyatlovskiy Rayon. By the way, one can find a special feature in the work of each of them. At Porechye Sovkhoz, they reequipped the works cultivators for wide operations, created a powerful link for the preparation of the soil, and organized the round-the-clock work of tractors, whereby for the first time in recent years they provided sowers with an adequate work front. To raise the protein value of the harvest, they thicken all fodder sowings of barley with peas and those of oats with vetch.

I was able to see many examples of the current creative approach to the organization of the sowing campaign on farms here. But the main thing is that any novelty and any valuable thought rapidly spreads through the rayons. Thus, everywhere a check system took root for controlling expenditures in the fields . . .

One of the main features of this spring in Belorussia is that it has become a time of search, a time of extensive and bold experiments. The agronomists of Minsk Oblast, for example, are working to gather 50 quintals of grain per hectare on one-third of the plantings of barley, the main fodder crop (more than 70,000 hectares). The grain growers of Gomel Oblast are applying this task to the entire barley field. They are sowing only first-class seed in practically the entire republic. They are paying particular attention to covering the seed at an equal depth. Besides the usual agricultural procedures, such as the leveling and rolling of the fields, they are making extensive use of seeders that have limiting flanges welded onto their disk plowshares.

In the course of the mass winter training, much time was dedicated to the correct technological adjustment and tuning of machinery.

The people in Nesvizhkiy Rayon of Minsk Oblast have established an important goal for themselves. Their task is to obtain a rayon average of 50 quintals of grain per hectare. It is no accident that this address was chosen. The land, technical provision and personnel skills here are among the best; two farms have already reached this level and last year the rayon as a whole harvested 40 quintals of grain per hectare. The farms are helped by scientists and are given the necessary fertilizers and chemical means for protecting the crops. But the main thing will depend upon the farmers themselves. What will be their attitude when they take to the fields?

"I think that the task is realistic," says N.A. Drachan, chief agronomist of Kolkhoz imeni Lenin and one of the most authoritative specialists. "I am now looking forward to my 33rd spring as an agronomist but I was never as certain of good results as I am now. For intensive technology is a real revolution in farming. Last year, it gave us an additional ton of grain per hectare, permitting a harvest of 43 quintals per hectare. This year, we are programing 52 quintals."

There are considerable reserves for doing this. They are making drastic changes in the variety structure of the sowings. They protected winter crops against snow mold by treating them with fundazol. All barley and oats seed went through incrustation with an increase in microelements, about which they used to have no notion.

Preparations for Spring Sowing

Minsk SOVETSKAYA BELORUSSIYA in Russian 30 Apr 87 p 2

[Text] All oblasts have begun spring sowing. At the beginning of April, 93 percent of the tractors on hand, 99.8 percent of seeders, 99.5 percent of tractor plows and 99.6 percent of cultivators were in good working condition. The repair of silage and fodder harvesting equipment is going slowly.

As of 20 April, spring crops had been sown on 333,300 hectares, including grain and legume crops on 297,800 hectares.

The plan for the delivery of cultivating and sowing machines, mineral fertilizers and chemical feed additives was fulfilled. Fewer tractors and machines for applying mineral and hard organic fertilizers to the soil were delivered than provided for by the plan.

Proper Fall Plowing Measures

Minsk SELSKAYA GAZETA in Russian 5 Sep 86 p 1

[Article: "Autumn--the Basis of the Future Harvest: Operational Review of BSSR Gosagroprom"]

[Text] The fall is a time of much work. But despite the complexity and great intensity, one must not forget about the future harvest of spring crops. The timely fall cultivation of the soil occupies an important place in the system of technical agricultural measures.

The practice of advanced farms and the experimental data of scientific institutions have shown that plowing for spring crops in August or September rather than in October makes it possible to obtain a harvest that is larger by 3 to 4 or more quintals of grain per hectare. For this reason, this important factor must be considered everywhere.

This year, the farms of many rayons took advantage of the favorable weather conditions, skillfully organized the harvest work, quickly freed the fields of straw and did the fall plowing at the same time that they prepared for the sowing of winter crops. As a result, the fall plowing has been completed on 40 to 57 percent of the areas at the kolkhozes and sovkhoses of Luninetskiy, Maloritskiy, Yelskiy, Checherskiy, Berestovitskiy, Zelvenskiy, Svislochskiy, Slonimskiy, Kletskiy, Slutskiy and Starodorozhskiy rayons and they are already carrying out the semifallow cultivation of the plowed sections.

At the same time, many farms are neglecting this important type of work. Only this can explain the fact that so far the schedules for fall plowing are not being met. Vitebsk Oblast, for example, was supposed to have completed fall plowing of 157,000 hectares by 1 September but actually they have plowed 55,900 hectares. As of this date, Gomel Oblast was lagging behind by 47,000 hectares, Brest Oblast by 33,500 hectares and Mogilev Oblast by 11,500 hectares.

The kolkhozes and sovkhoses of Baranovichskiy, Kamenetskiy, Vitebskiy, Dokshitskiy, Lioznenskiy, Miorskiy, Orshanskiy, Rossonskiy, Shumilinskiy, Petrikovskiy, Zhlobinskiy, Buda-Koshelevskiy, Dzerzhinskiy, Chervenskiy, Belynichskiy, Kirovskiy, Klichesvskiy, Osipovichskiy and Shklovskiy rayons, where on 1 September less than one-fifth of the area had been plowed, and the farms of Braslavskiy, Gorodokskiy, Dubrovskiy, Polotskiy, Postavskiy, Ushachskiy, Chasnikskiy and Goretiskiy rayons, where the fall plowing has been done on only one-tenth of the area, are missing the best times for fall plowing.

A check has shown that the reason for the slow pace of fall plowing is the lack of the necessary organizational work directly at the kolkhozes and

sovkhozes as well as in the brigades. The two-shift work of plowing machinery has not been organized everywhere and they have not provided for the necessary agronomic and technical control over the productive utilization of the machines. They are still far from doing everything possible for the broad dissemination of advanced experience in the organization of the fall plowing. In the fall plowing, just as in the harvest of grain crops, every effort must be made to encourage the best tractor drivers and to make skillful use of moral and economic incentives.

On individual farms, the plowing is being done with considerable straw still on the fields and with unadjusted plows without skim colters and ring rollers. In a number of places, they do a poor job of covering stubble with soil and collapsed ridges and disintegrated furrows are not repaired. Thus, at Kolkhoz imeni Kirov in Drogichinskiy Rayon, the fall plowing was done in areas where they had done a poor job of removing the straw, without skim colters. At Chechera Sovkhoz in Buda-Koshelevskiy Rayon, they plowed without skim colters and ring rollers.

The intensive use of heavy agricultural machinery in the fields leads to excessive moisture in the soil, especially in the case of heavy soils. The result of the annual plowing at the same depth is the formation of a subsurface sole that worsens the water and air and nutrient regime of the soil. In this connection, in the system of fall cultivation procedures, the republic's kolkhozes and sovkhozes should make wider use of chisel subsoil cultivators for the deep loosening of the soil. On inclined lands, such loosening will permit a lessening of water erosion processes.

Precisely now we are establishing the foundation for the 1987 harvest of spring crops. Timely fall plowing will help farmers to resolve successfully the plans for an increase in yields in the second year of the five-year plan.

Spring Field Work Begins

Minsk SELSKAYA GAZETA in Russian 9 Apr 87 p 3

[Article by V. Algerchik]

[Excerpts] Making skillful use of the weather conditions this spring, a large group of farms and rayons of Brest, Gomel and Grodno oblasts has begun field work on a broad front. Perennial grasses, winter crops and hayfields have received supplementary feeding in a large part of the areas in Maloritskiy, Pruzhanskiy, Lelchitskiy, Svislochskiy, Lyubanskiy and other rayons. Organic and mineral fertilizers are being applied for spring crops in practically all oblasts. This, however, is far from being the situation on all farms. It is important not to miss the optimum times for the start of field work and to carry it out with high quality.

In the spring fields, things need to be organized so as to sow the early grain crops in no more than 5 working days and flax and sugar beets in 3 to 4 days and to plant potatoes in 8 to 10 days. The technical provision of the farms makes it possible to ensure such a work pace with high quality.

The front of the sowing campaign is gaining speed and impetus. The forces of the agro-industrial complex established in the republic make it possible to carry out this important campaign in a timely manner and with high quality and to establish a dependable basis for the harvest in the second year of the five-year plan.

The appeal of the CPSU Central Committee "To the Soviet People" states that from time immemorial our land has had a reputation for masters and grain growers with a capital letter, who have the ability to perform any job very well. Today they are laboring in the spring fields at an accelerated pace. This is their labor gift to the 70th anniversary of the Great October.

Proper Soil Preparation Detailed

Minsk SELSKAYA GAZETA in Russian 14 Apr 87 p 3

[Article by G. Belov, senior scientific worker of BelNIIZ and doctor of agricultural sciences, and V. Tutin, senior agronomist of the agricultural administration of Belorussian SSR Gosagroprom: "Prepare the Soil on Time and Correctly: A Note to the Farmer"]

[Excerpts] The excessive moisture in the soil in a number of rayons of the republic this year can create considerable complications in the use of equipment and have a negative impact on the quality and timing of spring field work.

On a number of farms in the republic's northern zone, especially in Beshenkovichskiy, Verkhnedvinsky, Vitebskiy, Miorskiy, Lioznenskiy, Tolochinskiy, Orshanskiy, Postavskiy, Sharkovshchinskiy, Shumilinskiy, Shklovskiy, Mstislavskiy, Goretskiy, Kruglyanskiy, Krichevskiy and several other rayons, clay and loam soils make up more than half of the plowed area. A significant part of them is subject to temporary excessive moisture and matures later. As a result, the work to prepare the soil and the spring sowing are delayed every year on most farms of these rayons. To begin the cultivation of the soil earlier, especially under the conditions of this year's late spring, it is essential to utilize caterpillar tractors on such lands in the early spring period. Also very effective are the wheeled tractors K-700, 701, T-150, MTZ's with twin wheels and MTZ's reequipped for half-track travel.

Such crops as oats, barley, spring wheat, peas, fodder lupine, flax and sugar beets are sown early. For this reason, the presowing cultivation of the soils for them must take place in a very short time. One should keep in mind that delay in the first spring cultivation of the fall plowed area, especially on soils light in texture, leads to a great loss of moisture and to the rapid drying out of the upper layer. In this connection, the first cultivation needs to be done selectively as the soil dries in each section or field.

Many farms groundlessly plow the fall plowed area a second time in the spring and, in so doing, a significant quantity of weed seeds plowed under in the fall reaches the upper layer of the cultivated soil. Under favorable conditions, they germinate at the same time as do seeds of crop plants and

infest the fields. In addition, the replowing of the fall-plowed fields leads to a rapid drying out of the soil, requires more time and resources than cultivation, delays the time of the sowing of the crops, and lowers the harvest. This must not be permitted.

The farms must maintain permanent control over the state of the soil in each field and section so as to begin its cultivation as soon as possible.

The presowing cultivation of the soil intended for spring crops carried out correctly and on time helps to preserve soil moisture, to rid the soil of weeds, and to raise the yield of agricultural crops.

Spring Field Work Outlined

Minsk SOVETSKAYA GAZETA in Russian 17 Apr 87 p 4

[Unattributed article: "Higher Pace and Quality of the Sowing Campaign: Operational Review of BSSR Gosagroprom"]

[Excerpts] For the southwest and western rayons of the republic, it is now time to sow spring grain and legume crops and to feed winter crops, perennial grasses, hayfields and pastures. Undersowing of perennial grasses is under way. Individual farms have begun to plant potatoes and sow corn and annual grasses. In connection with the cold late spring, however, the front of field work is advancing slowly into eastern and northern rayons and the sowing campaign will begin here somewhat later than the long-term average dates.

By 15 April, 124,100 hectares of spring grain and legume crops, or 7.4 percent of the plan, had been sown in the republic. They have sown 38.3 percent of the planned areas on the farms of Brest Oblast, 6.7 percent in Gomel Oblast, 5.7 percent in Grodno Oblast, and 2.4 percent in Minsk Oblast. The lag in comparison with last year is 9 days in Gomel Oblast, 7 days in Minsk Oblast, and 4 days in Brest and Grodno oblasts.

The weather conditions and the unusually late development of spring processes require adjustments everywhere, the acceleration of spring field work and their conclusion at the optimum time. Checks have shown, however, that the field work is not being organized properly everywhere. In Mozyrskiy, Berestovitskiy and several other rayons, they have not established the necessary stock of distributors and water pumps for loading equipment and they are allowing lost time in the use of this equipment for the application of organic fertilizers. There is a lack of exchange subassemblies, assemblies and engines for power-saturated tractors in Mozyrskiy Rayon. Equipment stands idle because of interruptions in the supply of oil on the farms of Grodno and Berestovitskiy rayons and in the supply of gasoline on the farms of Kobrinsky Rayon. The quality of restoration of subassemblies for T-150 tractors by the Shchuchin and Mogilev repair plants is low and this is the reason why these tractors stand idle in Zhabinkovskiy and Berestovitskiy rayons.

There is no timely delivery of mineral fertilizers to a number of farms in Mozyrskiy Rayon and of rizotorfin for treating seeds of legumes to some farms in Berestovitskiy and Grodnenskiy rayons.

Individual farms of Berestovitskiy and several other rayons are late in treating the seed of spring grain crops. They are not observing the standards for the use of disinfectants in the treatment of seed and the calculated fertilizer doses or uniformity of application. Not everywhere is the sowing organized and being carried out while observing the necessary technological requirements for the depth and uniformity of the covering of the seeds, they are not loosening the turn-around strips before sowing them, and there are other shortcomings.

The necessity of the timely and high-quality performance of spring field work requires the highly productive utilization of machine and tractor units everywhere as well as the efficient organization of labor and the shunting of equipment. Urgent measures need to be taken to acquire and make maximum use of wide-coverage and combined machine units, which essentially can be developed at any kolkhoz or sovkhoz.

It is essential to set up the around-the-clock work of soil-working machine units for the application of organic fertilizers and double-shift work during the daylight hours for the application of mineral fertilizers and the supplementary feeding of winter crops, grasses, hayfields and pastures as well as for sowing. At farms where this has not been done, it is necessary to man tractors with machine operators for double-shift and 24-hour work.

For the purpose of reducing the time spent in carrying out spring work, it is essential to review the expediency of performing certain operations and to reduce to a minimum the replowing of fall-plowed fields in the spring, having increased the amount of work in covering organic fertilizers using tools for the surface working of the soil. It is also necessary to compensate for organic fertilizers not applied for spring grain crops by applying ammonia water and other mineral fertilizers and to apply large amounts of qualitatively prepared mixtures of phosphorus and potassium fertilizers in the basic load.

It is necessary to establish daily checks of the maturing of the soil as well as of the sequence of work in its preparation and in the sowing and to specify the optimum sizes of the technological links taking into account the specific conditions of the farms. Under the conditions of the uneven maturing of soils, they should be cultivated selectively and, on hills, contoured cultivation should be used. The sowing is to be performed in an analogous manner.

This year, especially in the northeast rayons in connection with the later sowing, it is essential to increase the relative share of early and medium-maturing varieties of spring grain crops, corn, potatoes and other crops, utilizing for these purposes seed from reserve stocks and allocated from state resources. Also, to the extent possible, it is necessary to exchange seed among farms. To avoid losses in yields during the harvest, one should not delay the sowing of flax, lupine and vetch for seed or carry it out simultaneously with the sowing of early cereal crops. In this connection, it is not advisable to sow flax and sugar beets twice.

For the purpose of preventing seed spoilage where sown in inadequately warm soil, it is necessary to treat it with film-forming substances providing for a reliable protection against soil infections.

The cold late spring is creating the conditions for the rapid growth of weeds in the sown areas. It is essential to put chemical-protection equipment in a complete state of readiness and to bring in the necessary herbicides taking into account a possible increase in the amount of weeding with better quality.

At low air temperatures, snow mold may develop in the areas sown in winter crops with excessive soil moisture. In such sections, supplementary nitrogen feeding must be a priority procedure and their double harrowing is mandatory.

In the spring sowing, in the quest for quantity and time, one must not allow oversimplification and a reduction in the quality of the work. All planned technological operations in the cultivation of agricultural crops, especially under intensive technologies, must be mandatory and must be carried out with good quality and on schedule.

Spring Field Work Delayed

Minsk SELSKAYA GAZETA in Russian 22 Apr 87 p 1

[Article under "Operational Review of BSSR Gosagroprom" rubric: "The Spring Field: No Loss of Time, Observance of Technological Discipline"]

[Excerpts] The development of the weather patterns has been unusual this year. Whereas in the southwestern rayons they have begun sowing work on a broad front, only individual farms are doing this work in the northeastern rayons. The slow increase in warmth has meant that the sum of positive temperatures was 50 to 75 degrees lower than last year in the southwestern part of the republic and 40 to 60 degrees lower in the northeast. Night frosts almost every day are drying out the surface layer of the soil. The spring field work is lagging significantly behind last year. The managers and specialists of a number of kolkhozes and sovkhozes and rayon agro-industrial associations have taken a wait-and-see position and are delaying the soil preparation, the application of fertilizers and the supplementary feeding of winter crops, perennial grasses, hayfields and pastures. They are performing sowing work at a slow pace.

It is very important to put to work wide-coverage and combined machine units and to reduce to a minimum the time for soil preparation and sowing. At a number of farms, to increase the passability for tractors, it is advisable to convert them to half-track use, to equip them with twin wheels, or to regulate the pressure within the tires. In many cases, it is necessary to reexamine the advisability of carrying out particular technological operations and of replacing them with simpler and more productive operations such as, for example, the covering of organic fertilizers using disk or chisel tools instead of plowing them in, the preliminary mixing of mineral fertilizers instead of their separate application, etc. In addition to ground equipment, all available air resources in the republic must be used in the application of mineral fertilizers for spring crops and for the supplementary feeding of

young crops, grasses, meadows and pastures and its maximum productivity must be ensured.

During these days, farm specialists are obliged to observe the state of the fields carefully, utilizing every opportunity to prepare them selectively. For this purpose, it is necessary to utilize all soil-working machinery and to establish mobile links. In connection with the delays, special attention needs to be paid to the varieties of grain and other crops, giving priority to the sowing of early and medium-early varieties and hybrids that ensure earlier harvests and that make it possible to reduce the peak load during the fall period. Under the existing conditions, one must not allow delays in the sowing of flax, lupine and vetch for seed or carry them out at the same time as early cereal crops, making it possible to avoid losses in yield during the time of the harvest. It is not advisable to sow flax and sugar beets twice in this situation.

The cold and delayed spring may create the conditions for the rapid growth of weeds in the young crops. For this reason, it is already necessary to prepare the chemical-production equipment, to provide the farms with the necessary herbicides in advance taking into account a possible increase in the amount of chemical weeding, and to organize the high-quality application of compounds.

The organization of the production of legume crops and buckwheat requires the closest attention of farm specialists and managers as well as of the workers of the rayon link. From year to year, the farms of not a single oblast fulfill the state plans for the sale of these crops. This year, depending upon the soil types, it is essential to put in seed sections of zoned varieties of peas, lupine and vetch on each farm. In so doing, the sowings of peas and lupine must, as a rule, be in a pure form while observing all the requirements of the intensive technologies for their cultivation. In addition, it is essential everywhere to expand this year's sowing of grain fodder mixtures of spring grain crops thickened with legume components for balancing their protein content.

Despite the difficult weather conditions, the field work is gaining speed every day and its front is expanding. According to the operational information on 20 April, spring grains and legume crops had been sown in an area of 296,600 hectares, which amounts to 17.6 of the plan. The plan for the sowing of spring grains was fulfilled by 65 percent in Brest Oblast, by 24.9 percent in Grodno Oblast, by 23.4 percent in Gomel Oblast, and by 8.8 percent in Minsk Oblast. The farms of Mogilev and Vitebsk oblasts have begun sowing work.

In mobilizing the efforts of rural workers to increase the pace of field work, in no case in the spring sowing can one permit oversimplification in fulfilling the technological requirements or a lowering of the quality of the work in the quest for quantity and time in its performance. Unfortunately, on-site checks are still revealing a great many cases of poor soil preparation, low quality in the technological adjustment of soil-working and sowing machinery, the nonobservance of the depths for covering seed and the uniformity of its distribution in the fields, the sowing of poorly treated seed, the violation of sowing standards, and other shortcomings. There must

be a fundamental accounting for each such or similar case promptly and those guilty must bear administrative and economic responsibility. An unalterable requirement for everyone is that all foreseen technological operations in the cultivation of agricultural crops, especially under intensive technologies, must be mandatory and must be carried out on time with good quality.

In organizing the spring field work, special attention needs to be paid to the organization of the care for winter crops, winter rape, perennial grasses and meadow and pasture lands and to their timely feeding with nitrogen fertilizers. Detailed recommendations and requirements for the performance of this work were presented in previous issues of SELSKAYA GAZETA. With the renewal of the growth phase, one must carefully inspect each field of winter grain crops and winter rape, evaluate the state of the crops and determine their specific use and the planned measures for their care. Perished plantings of winter grain crops must be reestablished by shifting them from the feed group or by expanding the area sown in spring grain crops and perished winter rape must be restored by resowing the perished areas with spring rape.

The existing situation requires high preparedness and a high degree of mobilization of all those who have been entrusted with the fate of the harvest in the second year of the five-year plan. The success of the sowing will be determined by the level of labor organization, by the maneuverability of resources and by the creativity and responsibility of all participants in the sowing campaign at each specific place.

9746

CSO: 1824/258

SPRING PREPARATIONS IN ROSTOV OBLAST

Moscow PRAVDA in Russian 2 May 87 p 3

[Article by M. Kryukov: "There Will Be Grain"]

[Text] THE COLD SPRING DELAYED PLANTING BY ALMOST A MONTH. SNOW REMAINED ON THE FIELDS FOR A LONG TIME. ON THE EVE OF MAY DAY IT FINALLY WARMED UP AND GRAINGROWERS BEGAN FIELD WORK. PESCHANOKOPSKIY RAYON DID MORE THAN OTHERS. THE SNOW MELTED EARLIER THERE.

V. Kirpichev's brigade at the Put Lenina Kolkhoz was among the first in the rayon to be congratulated on finishing the planting of spring crops. This was simultaneous with May Day congratulations. N. Ryabtsev, first secretary of the CPSU raykom visited the grain growers and presented a state letter and gifts to brigade members.

The struggle for the harvest is still ahead. There are concerns and worries enough, but V. Gritsay, the farm's chief agronomist is confident that there will be grain! In a complicated situation the technology has not been simplified. Character withstood the exam.

Even within a single rayon there are contrasts. While barley is already sprouting in the southern farms, in the north the planting units are just going out on the fields.

Only part of the winter crops in Peschanokopskiy Rayon withstood the dry autumn and winter freezes. Therefore, the spring planting doubled. Growers worked conscientiously. During these days dozens of families received letters of gratitude. Party committees, kolkhoz boards and sovkhos directors thanked those who withstood the difficult conditions and worked honorably. This was simultaneous with May Day celebrations.

Peschanokopskiy growers are now concerned about row crops. Ahead is corn and sunflower planting and more sugar beet planting. On May 10 they plan to conduct a rayon review of crop production standards. A commission is visiting each field. Each is now especially valuable.

V. Gubskiy, Rostov Obkom secretary, comments: Really, this spring the weather was unfortunate. Under such conditions it is important not to lose one's head, to show grain growers' gumption and to rely upon knowledge and experience. Areas where winter grain crops died have been replanted to barley, grain corn, peas and other high yielding crops. The main reliance is upon the introduction of intensive technology. This year there will be about 1,200,000 hectares of intensively farmed crops. We are placing hopes upon cost accounting and contracts. The new organization of work has given people a sense of being masters. It is proving itself well in the present difficult conditions.

While last year we had finished planting early spring barley throughout the oblast by May Day, today this work is only being done in the southern rayons. Harrowing has not even begun in the northern ones. However, spring is coming. The field work front is rapidly moving north. Farms are trying not to lose a single hour. Time is now more valuable than ever.

There is great concern about the harvest. Additional seeds have been allocated for replanting. There is enough fuel oil and lubricants. More fertilizer has been stored up than previously. This is very appropriate. Spring barley now occupies almost 1,900,000 hectares. As is known, this crop is very responsive to fertilizer.

However, the main hope is placed upon people. Many rural dwellers spent the May holiday in the fields. This was their schedule. The south is passing the May Day baton to growers in the northern rayons.

After planting there are new concerns. It will soon be hay cutting time. Everything should already be prepared to harvest hay without losses and to prepare as much feed as possible for winter.

11574

CSO: 1824/254

SPRING FIELD WORK IN DON SURVEYED

Moscow SELSKAYA ZHIZN in Russian 6 May 87 p 1

[Article by Yu. Maksimenko: "Spring's Strict Accounting -- Make up for Neglect, Increase the Pace and Improve Quality, these are the Main Demands Today. Why are they Neglected at Many Farms in the Don?"]

[Excerpts] What helps the Peschanokopskiy Rayon growers master the situation during planting and overcome the difficulties of a later spring? It is a businesslike attitude, organization and responsibility. Without being driven or excessively supervised, the RAPO's agronomic and engineering service and kolkhoz technologists combine their efforts in the fields and create a concerned working attitude which helps grain growers better use equipment, fertilizer and other resources.

Almost 1 million hectares of grain and pulse crops have been planted in the oblast. From the Zadonya, the planting rapidly moved towards the and northeast part of the oblast. Tractors and crews have been sent here from southern rayons (Salskiy, Tselinskiy, Peschanikopskiy, Zernogradskiy, Kagalnitskiy and others). Using their experience farmers in the northern and northeastern farms can and should do high quality planting work, retain additional soil moisture and obtain strong plants. The basis for planting is now initiative and intensive efforts by each labor cell, ability to organize people's work, use new progressive agronomic measures and equipment, masterful arrangements and timely measures by managers and specialists at RAPO's, kolkhozes, sovkhoses and the agroprom enterprises servicing them.

There is no rear area in today's planting. Each position is on the front line. First of all this line passes through those thousands of production units which have signed collective contracts for up to 80 percent of all arable land in the oblast. This means that the harvest's fate depends decisively upon their success. Today there are more than 38,000 management workers and specialists on kolkhozes and sovkhoses in the Don alone. There are hundreds at RAPO's. With this huge apparatus it would be unjust to complain about lack of attention to contract collectives. But one must.

This spring on farms in Krasnosulinskiy, Oktyabrskiy, Rodionovo-Nesvetayskiy and other rayons field units are losing much work time because of poorly organized mechanized loading of grain drills. For example, on a barley field at the Persianovski Sovkhoz a contract collective in the second department initially had three grain drills. One could see how the tractor drivers Vladimir Vereshchagin, Ivan Kuzmin and Sergey Ishchenko had tried to drive. However, at the field's edge each drill stood idle 10 minutes while being loaded. Drill attendants used buckets to load the grain boxes on the drills. What is being saved here? This wasted two hours daily. The chief agronomist, sovkhos director and other managers come around, call on people to value every minute. These empty calls fly into nowhere.

I asked machinery operators if they knew about the farming methods of V. Pogoreltsev's brigade in Peschanokopskiy Rayon, which has obtained high yields of spring barley. No, nobody had told them about it, they said.

In neighboring Krasnosulinskiy Rayon there are more than 50 contract production units with more than two-thirds of the farms' arable land. I got acquainted with the work of two of them -- the first and second contract detachments of I. Ulchenko and Yu. Drozdov at the Leninskiy Put Kolkhoz. The operators plant spring barley, replace winter crops and grasses. They are not waiting for tomorrow to work on row crops. I asked the detachment chief I. Ulchenko and A. Kaplyu an operator from another detachment to show me the row crop units and how they were equipped for the Astrakhan technology. There was nothing for them to show. The Zverevskoye repair-engineering enterprise only delivered 1 of the 4 new PPR-5.6 working units and cultivators allocated to this farm. Ulchenko pointed to the body of the attachment, messily welded at the brigade's blacksmith shop.

The detachment manager complained, "We had counted on specialists at the repair enterprise helping us assemble the units. I am at my wit's end. How can it be done, I have no people, everybody is in the field."

There are similar situations on other kolkhozes. Judging from everything the Krasnosulinskiy Rayagroprom has not done the organizational work needed to support plans for the introduction of progressive technology on the fields. Department managers and senior specialists won't leave their office desks. They are not seen among the operators and machinery.

Contract collectives know how valuable each quintal of fertilizers is right now. Each kilogram will bring in 5-6 kgs of grain. However, because of bad management and waste during storage, far from all fertilizer reaches the fields. At the Veselovski agrochemical commercial base, located near the Nechetinskaya Railroad Station, many dozen quintals of nitrogen and phosphorus fertilizer are lost, they are covered with mud and fall into puddles. One sees a dismal picture at the agrochemical point of the Persianovski Sovkhoz. Superphosphate is scattered everywhere, heaps of it are piled up under the open sky against the walls of a hole-riddled storage building and are blowing away in the wind. How many wise words do managers and specialists in rayons and oblast say about the usefulness of fertilizer! What is needed are deeds and practical work.

Spring, especially this one, make strict accounting and harsh demands upon each farmer, specialist and management worker. The main measures for evaluating their work are its quality, yields and the future harvest.

KINEL RAYON EXPERIMENT, LIVESTOCK PRODUCTION RESULTS EXAMINED

Moscow ZHIVOTNOVODSTVO in Russian No 3, Mar 87 pp 4-7

[Article by Yu. I. Volpov, chief of division for producing and processing animal husbandry products, and F. N. Kaledinov, head economist for wages of the agroindustrial association of Kinelskiy Rayon in Kuybyshev Oblast: "On the Basis of the Achievements of Scientific and Technical Progress"]

[Text] Animal husbandry workers of Kinelskiy Rayon, guided by the decisions of the 27th CPSU Congress concerning acceleration of socioeconomic development of the rural areas, are restructuring the branch of animal husbandry on the path of intensification in the production of products. The restructuring is proceeding on the basis of the introduction of the achievements of scientific and technical progress.

Kinelskiy Rayon is a suburban zone. And this determines its specialization in the production of agricultural products. About 9,000 people work here, it has 160,000 hectares of land, 49,900 head of cattle, and 64,200 hogs. The level of profitability of the production of animal husbandry products in 1986 throughout the rayon amounted to 50 percent, and profit--21 million rubles or 6.2 million rubles more than in 1985. As compared to 1985 expenditures per 1 quintal of milk decreased by 5.3 percent, beef--by 4.6 percent, and pork--by 9.3 percent.

Since 1 January 1986 an experiment has been conducted in the rayon for improving the system of management and the economic mechanism. Because the farms have changed over to self-support, they have begun to plan the wage fund independently, taking into account the normative indicators, and they have raised the question of creating new, better anti-expenditure methods which would above all develop individual and collective interest in economizing on material and technical resources. For the rayon this system of wages was payment according to gross income in combination with the collective contract.

While using the new method for forming the wage fund, the kolkhozes and sovkhoses formed a reserve fund in the amount of 650,000 rubles, and other organizations of the RAPO [rayon agroindustrial association]--43,000 rubles. the collective contract contributed to increasing labor productivity and raising the level of wages.

The production cost of the gross output from animal husbandry per one worker working under contract in 1985 was 16,000 rubles, and without a contract--10,000 rubles, while the wages per worker per year were 2,764 and 2,327 rubles, respectively.

The managers and specialists of the Kolkhoz imeni Kalyagin were the first in the rayon to change over to payment for labor according to the gross income. As a result, even in the first year of work the economic indicators improved appreciably. Thus, as compared to the average figures for the kolkhozes of the rayon, the growth output of products per worker on the Kolkhoz imeni Kalyagin (taking into account administrative-management and service personnel) turned out to be 1.5 percent higher, and the milk yield per cow was 4 percent higher.

The Kolkhoz imeni Kalyagin became the base farm in the rayon. Here they have shop management of production with a dispatcher service which is being changed over to an automated control system. Using concrete material from the farm we studied the peculiarities of payment for labor according to the gross income, and the system of wages is being improved. The positive experience is being applied to other farms.

Payment according to the gross income has raised a significant task--to improve the accounting and organization of labor and the technology of production (we changed over to the journal-order form of accounting). On the dairy farms they have introduced two-shift organization of labor with the cows being milked three times per shift. The experience of the base farm makes it possible for the kolkhozes and sovkhoses of the rayon not to repeat the mistakes that are inevitable when something new is being tried.

All farms of the rayon are improving the organization of wages. Internal cost accounting [khozraschet] is being improved, as is the check system of verification, the normative method of planning is being assimilated, and operational control and economic analysis are being brought in line with the bookkeeping system.

In order to pay managers and specialists according to the gross income, rates per 100 rubles of growth output have been developed on all kolkhozes according to the branches of production (shops) and on the Komsomolets and Kutulukskiy sovkhoses this has been worked out per 100 rubles of agricultural products sold or produced, on the basis of the average annual volume for the past 5 years.

In recent years animal husbandry has been developing dynamically and stably in the rayon. Animal husbandry workers achieved fairly high results in socialist competition under the 11th Five-Year Plan. The five-year plan for the sale of meat to the state was fulfilled early, by April, and milk--by June 1985. The plan for producing meat for the five-year plan was fulfilled by 109 percent, and milk--by 112 percent. The milk yield per cow increased from 2,917 kilograms in 1980 to 3,430 kilograms in 1985. The average daily weight gain of cattle and hogs on fattening increased.

There was a considerable improvement in the qualitative indicators of the animal husbandry products sold to the state. While in 1981 the sale of high-grade milk was 85 percent, in 1985 it had increased to 97.8 percent. Profit from the sale of high-grade milk increased from 434,000 rubles to 836,000 rubles.

According to the results of the all-union socialist competition for successful wintering of livestock, the increase in the production and procurements of animal husbandry products during the winter period of 1985/86 in Kinel'skiy Rayon as a whole and also the Komsomolets and Malyshevskiy sovkhoses were declared winners of the All-Union Socialist Competition and were awarded certificates of honor of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee.

Work proceeded fairly well in animal husbandry in 1986 as well and the sale of meat to the state increased by 2 percent as compared to the preceding year, and milk--by 3 percent. The annual plans for sales to the state were fulfilled ahead of time--for meat by 15 October and for milk by 1 November. The productivity of the dairy herd in 1986 was 3,593 kilograms. The average daily weight gain of cattle being fattened was 662 grams and hogs--496 grams.

Further increased effectiveness of the work of the agroindustrial complex will depend on a radical improvement of the feed base, improvement of breeding work, the introduction of the achievements of scientific and technical progress, and the activity of the workers.

Now managers and specialists of the farms are being offered the opportunity to draw up their own plans for the production and procurements of agricultural products, the structure of the planned areas, the number of head of livestock, the production of feeds, the sales prices taking into account the level of product quality that has been reached, and the financing of expenditures. This required maximum utilization of internal production reserves and the potential capabilities of cost accounting subdivisions as well as of each worker.

The first steps in conducting the experiment show that when it takes place successfully the results of the work will be good. Thus during the first half of 1986 the production cost of 1 quintal of work was 24 rubles, 6 kopecks, as compared to 25 rubles, 34 kopecks in 1985, of 1 quintal of weight gain of cattle--208 rubles, 64 kopecks as compared to 218 rubles, 27 kopecks, and of 1 quintal of pork--135 rubles, 7 kopecks as compared to 147 rubles, 68 kopecks.

The savings on direct expenditures as compared to the 1985 level on the production of milk amounted to 267,000 rubles, weight gain of cattle--292,000 rubles, and weight gain of hogs--244,000 rubles.

Special attention was devoted to the development of animal husbandry and the provision of home-grown feeds for the livestock so as not only to increase the production of milk and meat, but also to reduce their production cost. In the local areas they took concrete measures for increasing the productivity of feed crops. This made it possible to strengthen the feed base, essentially without increasing the areas planted in feed crops.

Our specialists are convinced that on the basis of a solid feed base one can increase the programmed output and do purposive work for increasing the breeding and productive qualities of the animals as well as reveal the entire genetic potential of the herd. Therefore a great deal of significance is attached to procuring feeds and preparing them. In order to increase the production of feeds they have begun to plant more productive crops. The structure of annual grasses includes grain and pulse mixtures, winter and spring rape, and Sudan grass--the crops with the highest protein that are most productive.

In the structure of perennial grasses the largest proportion is comprised of alfalfa and grass-pulse mixtures. In recent years a great deal of attention has been devoted to production of Hay and the construction of hay storage facilities. Increasing the areas planted in sugar beets for feed will make it possible to include 2 tons of this valuable milk-producing feed in the rations of the cows. We no longer have any problems with providing the animals with silage. Agrotechnical measures that have been conducted contributed to this. The areas planted in corn are being condensed with sorghum and Sudan grass hybrids and sunflowers. The productivity of these crops is 60 quintals greater than the productivity of corn in pure form.

The wintering of livestock produces responsible tasks for the animal husbandry workers. The success of the fulfillment of the plan for 2 years of the 12th Five-Year Plan will depend largely on this. Well aware of this, the agricultural workers of the rayon prepared themselves ahead of time. The farms were staffed with personnel and animal husbandry facilities and feed shops were repaired. By the beginning of the stabling period, the cattle were provided with plenty of coarse and juicy feeds. All the feeds were processed in the feed shops and fed to the animals only in prepared form. We have 28 feed shops, including 20 for cattle and 8 for hogs. The rations are balanced in terms of their content of protein, carotene and other nutritive substances, and the cows are given warmed water. The schedule for the operation of the farms is strictly observed, as are the norms for mainstake livestock and all mechanisms and equipment as well as the heating and water supply systems operate continuously.

It is impossible to further increase the productivity of the dairy herd along with improving the system of feed production and feed preparation without the introduction of a scientifically substantiated system of breeding work. The main areas for this are increasing the breeding and productive qualities of the livestock and replacing less productive animals with more productive ones. As a result of absorptive crossing of cows of the Bestuzhev with bulls of the black spotted breed, the proportion of black spotted cattle as of today is 95 percent, and cows--93 percent. About 50 percent of the cows in the rayon are highly productive ones, on the Komsomolets Sovkhoz--100 percent, on the training farm of the agricultural institute--81 percent, and the experimental demonstration farm of the MIS--71 percent. The percentage of cows of high classes in the rayon is about 60. But we understand that these indicators are not the limit. There are still significant shortcomings in our work as well as unutilized reserves.

In order to further improve the black spotted breed and make the cattle more adaptable to the conditions of industrial technology, since 1978 we have been crossing black spotted cattle with Holsteins. The first to begin this large job was the Komsomolets Sovkhoz and then came the Kolkhoz imeni Kuybyshev, the Puts k Kommunizmu Kolkhoz and the experimental production farm of the MIS. At the present time the rayon has 8,526 head of cattle mixed with Holsteins, including 811 cows, 497 non-calving young cows, and 7,218 calves, of which 698 calves are old enough to be mated.

The productivity of the cows in the first lactation period was 3,504 kilograms of milk, which is higher than the productivity of their contemporaries by 855 kilograms, in the second lactation period--3,960, and in the third--4,854 kilograms, or, in other words, the productivity was 1,500 kilograms greater than that of other animals of the same age. The fat content in the milk in the various lactation periods amounted to 3.72 percent, 3.71 percent, and 3.73 percent, respectively. This shows the great potential of cattle with Holstein characteristics and therefore we have given farm managers and specialists the tasks of creating optimal conditions for feeding and maintaining crossbreed cattle. Much if not all will depend on the composition of the rations, their nutritional value, the provision of the necessary sugar and protein ratio, the level of mineral substances, and so forth.

Successful implementation of the entire complex of necessary measures for crossing Holsteins and black spotted cattle will make it possible by the end of the five-year plan to have about 13,000 head of cattle with Holstein genes on the farms, including more than 5,000 cows, to increase the productivity of the dairy herd to 3,700 kilograms of milk, to increase the sale of milk to the state to 49,000 tons, and thus to make a certain contribution to the implementation of the country's Food Program.

Performance of the tasks for further increasing feed production for the needs of animal husbandry is largely linked to the introduction of progressive forms of organization and payment for labor and the personal and collective interest of the workers and kolkhoz workers employed in their production. The areas planted in feed crops are assigned to specialized teams working under a collective contract. In 1985 75 percent of all the areas planted in feed crops and 96 percent of the irrigated areas were worked by such teams. The changeover to the new form of organization and payment for labor and the majority of farms to considerably increase labor productivity, to reduce production costs and increase the productivity of feed crops and, in the final analysis, to provide a sufficient quantity of coarse and juicy feeds for public animal husbandry.

At the same time work is being done to strengthen control over the expenditure of material and monetary funds and the utilization of technical resources as well as to increase economic independence. To this end almost all subdivisions have been changed over to the check system of control and internal cost accounting. The results of the work of the farmworkers are summed up each month at a meeting of the balance commissions. The planning of expenditures and production of products in the cost-accounting subdivisions are done by specialists and managers of the middle level.

Under the 11th Five-Year Plan the farms of Kinel'skiy Rayon were the initiators in the oblast of socialist competition for further increasing the effectiveness of agricultural production and management, improving product quality, economy and thriftiness, and exemplary organization of economic work.

Each year in the rayon conditions are established for the rayon socialist competition of kolkhozes, sovkhoses, farms and workers in animal husbandry during the wintering period for the livestock. The results from among the farms are summed up according to a five-point system. The following indicators are evaluated: the percentage of the fulfillment of the plan for procurements of meat and milk; the growth of procurements of products as compared to the corresponding period of the preceding wintering; the percentage of first grade milk released to the state; the average daily weight gain and average release weight of cattle; the output of calves per 100 cows; the milk yield per one cow; the increase in the milk yield per cow as compared to the corresponding period of the preceding wintering; the preservation of the cattle; the sanitary condition of the farms; and the availability and condition of premises for workers' needs on the farms.

The winner of the competition is the kolkhoz or sovkhos who has collected the largest number of points with respect to all indicators and has achieved a milk yield per cow that is no less than the average for the rayon. The kolkhoz or sovkhos that has won first place according to the results of the work for the month is entered on the honor roll published on the pages of the newspaper PUT K KOMMUNIZMU, and the one that wins according to the results of the quarter--on the rayon honor roll and a flag of labor glory is raised in its honor. Three farms win from the results of wintering and they are awarded certificates and monetary bonuses of 1,000, 750 and 500 rubles, respectively.

Further work of animal husbandry workers is impeded by the inadequate level of raising of replacement animals with the necessary quality as well as the unsatisfactory material and technical supply--there are not enough milk lines, vibro-pulsators, or automatic tethers.

At the present time the labor collectives of the rayon are restructuring the work of all units of the economic mechanism in keeping with the decisions of the June (1986) Plenum of the CPSU Central Committee which earmarked the main tasks for economic and social development.

Attaching great significance to the acceleration of scientific and technical progress in animal husbandry, the farms will be extensively introducing advanced technologies. It is intended to raise 40,000 piglets by the farrow-nest method on two farms, and 20,000 hogs will be fattened by the small group method. Half of the cows will be changed over to milking using milk lines, and automatic tethering will be introduced for these same animals.

During the wintering period 12 dairy farms with 9,700 head (67 percent of total), six hog-raising farms with 45,000 hogs (73 percent), and six farms for fattening cattle to include 9,000 head or 70 percent will be working under a collective contract.

There are 29 feed shops (including two KORK-15) in operation on the farms for cattle and hogs. We plan to reduce the expenditure of grain for feed purposes by 10 percent as compared to the plan. Artificial milk is being prepared on all the farms. During the course of zooveterinary training the class ratings of the animal husbandry workers are increasing.

The plants earmarked for improving conditions for labor safety of animal husbandry workers and sanitary and health measures are being implemented.

There are 39 day rooms and 75 premises for workers functioning on the farms. Preventive medical aid is rendered to the animal husbandry workers in polyclinics, outpatient clinics, area hospitals and nine dispensaries. Trade services for animal husbandry workers have been improved, 12 stores and dining rooms are operating on the farms, and there are also saunas.

Workers of the rayon enthusiastically approve of the address of the CPSU Central Committee to the workers of the Soviet Union: "The 12th Five-Year Plan--Inspired Creative Labor of the Soviet People." They have received as a militant program of action the party's appeal to extensively develop nationwide socialist competition for successful fulfillment of the assignments of the 12th Five-Year Plan. Having estimated their capabilities, agricultural workers of Kinel'skiy Rayon are committing themselves to selling to the state during the 1986-87 wintering period 32,500 tons of milk, of which 98 percent will be of the first grade, and 10,000 tons of meat; and providing for the delivery of 60 percent of the cattle in the highest nutritional condition with an average live release weight of 410 kilograms per animal.

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DAIRY EQUIPMENT PROBLEMS, QUALITY CONTROL DISCUSSED

BSSR Milking Apparatus

Minsk SELSKAYA GAZETA in Russian 14 Mar 87 p 2

[Article by P. Stasevich, special SELSKAYA GAZETA correspondent: "Cloudy Prospects"]

[Text] "I read about a technical innovation used at milk production complexes in the last 2 years--the ADS-1 milking apparatus, which stimulates the milk flow reflex and is designed for milking cows on milking installations with a milk line. People say that, when operating it, premilking cow stimulation and mechanical stripping are not needed--the apparatus itself performs all these operations. I have heard that the use of such apparatuses makes it possible to reduce manual operations by a factor of 2.5 and milk losses, by more than 4 percent. The incidence of mastitis in cows also declines.

"Why does our engineering service not try to facilitate milkmaids' labor? Is it true that, in fact, the apparatus possesses such qualities?"

(From a letter by M. Shabunya, chief zootechnician at Osipovichskiy RAPO, to the editorial department).

Why, in fact? M. Shabunya is not the only one addressing such a question to the editorial department. More than five milking equipment modifications are now used at livestock sections and not a single one satisfies livestock breeders. Milk, time, and effort are lost--in the dairy sector milking now accounts for more than 40 percent of all the labor expenditures. Thus, the desire to have a good milking apparatus meeting all requirements is fully understandable.

"We have many milking apparatuses, we even confuse their marks, but they are of little use: They are heavy, break down, and, owing to them, cows are steamed up prematurely. I believe that scientists and machine builders are indebted to us, livestock breeders. The livestock section has needed one, but real, milking apparatus for a long time." This was stated by T. Lavrentyeva, mechanical cow milking operator on the Kolkhoz imeni Kirov in Vitebskiy Rayon, expressing the opinion of all her colleagues, at the recently held First Republic Conference of the Trade Union of Workers of the Agro-Industrial

Complex, to which she was a delegate. That is why farms devour with such hope the scanty information on innovations in the vast family of milking apparatuses, hoping that the latter will become what they have been awaiting for such a long time.

"Yes, such an apparatus, in fact, exists," said V. Strelkovskaya, head of the dairy cattle breeding sector of the Main Administration for the Production and Processing of Livestock Products of the BSSR Gosagroprom. "It was developed by Siberian scientists. Experimental research and the practice of application of ADS milking apparatuses show that labor expenditures, as compared with the newest and most widespread ADU-1 apparatus, which is used presently, are reduced by a factor of 2.5, the incidence of mastitis in cows also decreases, and cows are stripped more fully. Thus, I believe that this apparatus has a big future."

Valentina Fedorovna showed the main part of the new apparatus, which fitted in her palm, that is, an especially developed pulsator, because the remaining units--teat cups, a collector, hoses, and nipples--were used from present DA-2M Mayga and ADU-1 series apparatuses.

"Thus, the pulsator of the new apparatus is small, but expensive," V. Strelkovskaya concluded.

Incidentally, an official document with the specifications of this apparatus, with which I was acquainted at the BSSR Gosagroprom, once again stressed these merits:

"The production check showed," it states, "that the ADS-1 milking apparatus, as compared with the series ADU-1 apparatus, is equivalent in the length of mechanical milking and the milk flow rate. At the same time, the ADS-1 ensures a more complete stripping and does not have a negative effect on the state of the mammary gland. A high operating reliability of this apparatus has been revealed."

"State tests of the ADS-1 milking apparatus were conducted at the Podolsk Machine Testing Station in 1985 and a decision on placing it in series production was adopted.

"We consider it advisable to use this milking apparatus, along with others, on the republic's kolkhozes and sovkhoses." This document was signed by V. Strelkovskaya, M. Baranovskiy, head of a laboratory at the Belorussian Scientific Research Institute of Animal Husbandry, and A. Muravyev, chief engineer at the Administration for New Technology and the Production of Machinery and Equipment of the BSSR Gosagroprom.

These are convincing arguments. Both zootechnicians and livestock breeders on the republic's farms believe in and rely on the new apparatus. The BSSR Gosagroprom also understood this. Therefore, an order with a request for an allocation of 15,000 units was immediately sent to the enterprise, where the production of new pulsators was set up.

As always, the bolt from the blue struck unexpectedly. V. Zvinyatskovskiy, chief specialist at the Department for the Production and Processing of Livestock Products of the USSR Gosagroprom, expressed an opinion, which razed to the ground all the views presented above, in the issue of SELSKAYA ZHIZN dated 7 December 1986. In the article "Series Reject" published under the heading "State Acceptance: Quality--Under Control" he writes specifically that "comparative tests and an economic check showed the low durability of such important and scarce parts of the vibropulsator as the membrane and its unreliability in operation leading to a deviation from certificate regimes. Many livestock sections discard the vibropulsator 1 to 3 months after the beginning of operation. With regard to the stimulating capability state tests at the Podolsk Machine Testing Station conducted in 1986 throughout the full lactation showed that from this aspect the low-vacuum milking apparatus ensured better results.

"Despite all this, machine builders insist on the series production of machines, which can only do damage to dairy husbandry."

Does the Main Administration of Animal Husbandry of the BSSR Gosagroprom know about the article in SELSKAYA ZHIZN?

"Yes, we know," sighs V. Strelkovskaya. "It concerns the ADS."

"What are the conclusions?"

"Fow now none... We have no idea whom to believe now. We must wait."

And what should M. Shabunya and his colleagues expect and whom should they believe? Especially as many of them, as is well known, believing in the merits of the new apparatus, have already taken independent steps for the purchase of ADS-1 pulsators in a so-called "initiative manner."

However, what is most alarming is the fact that milking apparatuses presently arriving at livestock sections often suddenly become even worse than "yesterday's ones." For example, what does one nontransparent tube of an inspection cone for the presently most widespread ADU-1 apparatus cost? On account of it operators are deprived of the possibility of observing the milk flow process and turn off apparatuses at an inopportune time. Milk is lost and a cow is put out of use prematurely.

One cannot say that the republic Gosagroprom does not give thought to these problems. For the purpose of developing a direction in ensuring a stable operation of machines, mechanisms, and equipment, a working group headed by Comrade Belyakovich, chief of the Main Administration of Mechanization and Electrification of the BSSR Gosagroprom, was established at dairy sections. It made suggestions on placing the manufacture of scarce spare parts for milking apparatuses at the republic's enterprises.

This group has already taken the first practical steps. In particular, the Minsk Termoplast Plant manufactured a press mold for the production of transparent tubes of an inspection cone for the ADU-1 apparatus. However, the matter is progressing slowly. Chemists provide copolystyrene for the

production of tubes, but... nontransparent. Nor did the republic Gosplan have its say in the solution of this problem. The necessary quantity of raw materials for the appropriate Gosagroprom order is not allocated. This is how the "problem of the transparent tube" has "lived" for a long time.

Undoubtedly, there are still many problems connected with the retooling and servicing of livestock sections and complexes, especially in the provision with spare parts and equipment operation. However, there are problems, which can and should be solved. For example, with good and timely information and an efficient orientation of specialists in localities what happened with the ADS milking apparatus would not have occurred. The scientific and technical council of the BSSR Gosagroprom, which was established for the determination of a scientifically substantiated uniform technical policy in sectors of the agro-industrial complex, could play its role here. A special section for the production and processing of livestock products was also established in its structure. However, as is evident, the role of these subdivisions is not yet big. The scientific and technical council, which is called upon to determine technical policy in animal husbandry, in fact, has not yet been determined itself. Therefore, concerned specialists from farms, who have not received a definite answer to burning questions from appropriate services of the BSSR Gosagroprom, turn to the editorial department of this newspaper and to other authorities. However, is it the business of journalists to give an evaluation of this ADS apparatus? It seems that scientists and specialists should competently investigate its merits and flaws. And the sooner they do this, the better.

Defective Machinery

Moscow SELSKAYA ZHIZN in Russian 7 Dec 86 p 2

[Article by V. Zvinyatskovskiy, chief specialist at the Department for the Production and Processing of Livestock Products of the USSR Gosagroprom: "Series Reject"]

[Text] Cow milking is the most labor-intensive operation at a dairy section. It accounts for more than 40 percent of all the labor expenditures in the sector. With what do plants of the Ministry of Machine Building for Animal Husbandry and Fodder Production producing milking equipment meet the state acceptance of output?

Highly productive milking installations "yelochka" [evergreen], "tandem" [tandem], "karusel" [carousel], and "molokoprovod" [milk flow] have now been developed. However, at the bulk of livestock sections cows are milked by means of the simplest units with portable pails. This equipment, which is not even of yesterday, but of the day before yesterday, enables every milkmaid to strip no more than 15 cows per hour and to service only 25 animals. Nevertheless, the Ministry of Machine Building for Animal Husbandry and Fodder Production delivers mainly these types of machines--they make up more than 70 percent of the total number of milking installations used at livestock sections. Units of the ADM-8 "molokoprovod" type are used much more rarely.

Usually, in such cases manufacturing plants refer to shortcomings in production capacities. At the same time, the Rezekne Milking Installation Plant, not ensuring the orders of agriculture for ADM-8 units and spare parts for them, has produced products uncharacteristic of it--stable equipment--for a number of years.

Another reason is also mentioned. It turns out that the growth of ADM-8 production is held back by the shortage of glass milk receivers. In principle, this is the same glass bottle known since time immemorial. It is strange to hear after this the arguments of the Ministry of Machine Building for Animal Husbandry and Fodder Production on the impossibility of placing an order for these "supercomplex" parts in our country (during several five-year plans!). Indeed, those that do not want to work seek any reasons to justify their inactivity. After all, these bottles are not the only ones that can be used: Many foreign firms make milk receivers from metal. However, even this is an "insoluble" problem for the Ministry of Machine Building for Animal Husbandry and Fodder Production.

The intolerably low quality of milking installations also limits the demand for them. It is not a matter of some supernatural claims, but of the fulfillment of standard requirements worked out and approved by the Ministry of Machine Building for Animal Husbandry and Fodder Production itself. The frequent failures of milking installations and disruption in operating conditions lead to animal diseases, significant (no less than 10 percent of the annual milk yield) losses of productivity, a premature culling of cows, and a deterioration in the quality of milk.

For several years the Kurganselmash Association of the Ministry of Machine Building for Animal Husbandry and Fodder Production has been manufacturing unserviceable UDA-8 "tandem" and UDA-16 "yelochka" automated milking installations. At present automatic milking machines can operate, but for an extremely limited period. They fail rapidly, but it is virtually impossible to obtain spare parts for them. This is a real catastrophe for a livestock section. After all, if an automatic machine fails, it is impossible to use a milking installation under ordinary conditions. Teat cups and collectors are disunified here with the basic model of the ADU-1 apparatus and the farm, expending thousands of rubles on a new unit, is forced to search for an additional milking equipment set somewhere.

Under these conditions the return to the simplest installations with portable pails, at which milkmaids decrease the negative effects of unreliable machines with heavy manual labor, has become the natural defense reaction of sovkhoz and kolkhoz specialists and managers to such "advanced" equipment.

Milking installations and machines for initial milk processing greatly lag behind the world level. For example, UVU-60/45 series vacuum pumps have a low certificate productivity. When it is lowered by only 20 percent of the rating (this happens during the first year of operation), pumps must be repaired in accordance with the plant instruction. This is rarely possible in practice, which on a mass scale leads to unstable vacuum conditions during milking, an incomplete stripping of cows, an incidence of mastitis in them, and their premature steaming up and culling. In order to avoid such unpleasantness,

most foreign firms ensure no less than a fivefold reserve of the productivity of vacuum pumps, but enterprises of the Ministry of Machine Building for Animal Husbandry and Fodder Production stubbornly do not want to take this into consideration.

Milking installations of "tandem" and "yelochka" types are manufactured only in one modification--for 8 and 16 stalls. Of course, for the manufacturing plant this is simpler but, in practice, limits the area of their application and lowers their efficiency. World practice shows that it is better to manufacture modules of such machines for two or three milking stalls each. Then it will be possible to build from them an installation for the necessary productivity at any livestock section of a kolkhoz, sovkhos, or subsidiary enterprise. And again the matter rests on the unwillingness of machine builders.

Allowances for the finishing of surfaces in contact with milk, as well as for parameters determining the completeness of stripping, in the products of the Ministry of Machine Building for Animal Husbandry and Fodder Production do not meet present requirements. Milkmaids know how important it is for apparatuses to operate with the same pulsation frequency. However, according to the specifications of the Ministry of Machine Building for Animal Husbandry and Fodder Production they can change by 15 pulses per minute, which exceeds the level established by the international standard more than twofold. Thus, the inefficient work of machine builders discredits the new equipment, frightens economic managers away from it, and nullifies efforts for the industrialization of dairy husbandry.

In their attempt to lower metal intensiveness and to make a design technologically competent (for manufacturers, but not for livestock breeders) designers at the Riga State Special Design Office for a set of machines for cattle farms and manufacturing plants of the Ministry of Machine Building for Animal Husbandry and Fodder Production even worsen new machines as compared with prototypes. Often they are carried away to such an extent that they bring machines to an unserviceable condition. Designers at the Rezekne Milking Installation Plant "refined" the low-vacuum apparatus to such an extent that it ceased to correspond to its initial purpose. The hygienic properties of this apparatus deteriorated and its reliability declined. Yet the Ministry of Machine Building for Animal Husbandry and Fodder Production was given not some mock-up model made "on the knee," but a series apparatus produced by enterprises in Moscow and Tashkent oblasts for a number of years. It seemed that it should have taken the design, which proved its value repeatedly, developed technology and even accessories, and made an apparatus pleasing to the consumer. But no, such a direct path is not acceptable to the Ministry of Machine Building for Animal Husbandry and Fodder Production.

During the years of its existence this ministry assumed functions, which it should not have--to determine what equipment is needed by livestock breeders. It stubbornly refuses to make machines needed by consumers and, at the same time, imposes products not in demand. Since 1977 the ministry and its Riga State Special Design Office have opposed the introduction of an advanced low-vacuum milking system. Even after the adoption of a joint decision on its series production in 1984 the state of affairs has not changed. The Riga

State Special Design Bureau refuses to place an important part of this system--the vacuum regulator--in production and instead offers a regulator of its own design, which does not stand up to criticism.

The Kurganselmash Production Association continues the output of unreliable automatic milking machines of a floating and pneumatic action, although improved electronic devices, which make it possible, in particular, without additional labor expenditures to carry out control milking at livestock sections and, subsequently, to include the milking installations themselves in automatic systems for the management of technological processes at a livestock section, were recommended for series production 2 years ago. It is characteristic that the Ministry of Machine Building for Animal Husbandry and Fodder Production also ignores consumers' orders for the production of MD-F-1 manipulators as a separate item, which would make it possible to outfit previously produced nonautomated milking installations with them.

As of 1979 the Ministry of Machine Building for Animal Husbandry and Fodder Production has not fulfilled the jointly adopted decision on discontinuing the production of the hopelessly obsolete Volga milking apparatus and on introducing a single standardized design in the country. As a result, more than five milking equipment modifications are used at livestock sections. This aggravates the problem of spare parts even more. One often has occasion to see "hybrid" apparatuses made of parts of different marks. It is not difficult to understand what damage this does.

Incidentally, concerning spare parts. The milking machine is not "Zhiguli," in case of the wear of which public transport can be used. It is a matter of irrevocably lost milk and, ultimately, the fulfillment of the country's Food Program. Thus, is it not time to remove from the agenda the problem that exists only because no one deals with it competently and seriously?

Cases of an unsubstantiated introduction of unfinished equipment into dairy husbandry has often occurred during the last decades. Unfortunately, the Riga State Special Design Office and its new manager E. A. Kelpis continue this unfit "tradition." Owing to its persistent efforts, extensive work on the preparation of the structurally unfinished milking apparatus allegedly stimulating the milk flow reflex (vibropulsator) for series production was carried out. Comparative tests and an economic check have shown the low durability of such important and scarce parts of the vibropulsator as the membrane and its unreliability in operation leading to a deviation from certificate regimes. With regard to the stimulating capability state tests at the Podolsk Machine Testing Station conducted in 1986 during the full lactation showed that in this respect the low-vacuum milking apparatus ensures better results. It empties the mammary gland, increases cow productivity by an average of 115 kg during lactation, and raises milk fatness by 0.22 percent. The following fact points to the vibropulsator's "stimulating" effect: During its state tests one-fifth of the cows was self-steamed up and stopped producing milk 1 month ahead of schedule. It is not accidental that many livestock sections discard vibropulsators 1 to 3 months after the beginning of operation and, where they are continued to be used, milkmaids make a careful premilking preparation of the udder and mechanical stripping, that is, the operations that the new milking apparatus is supposed to eliminate. Despite all this, machine builders insist on the series production of a machine, which can only do damage to dairy husbandry.

MOSCOW TV REPORTS ON CHITA OBLAST FOREST FIRES

LD201618 Moscow Television Service in Russian 1430 GMT 20 May 87

[Article from the "Vremya" newscast]

[Text] [announcer] A fire hazard situation is continuing in Chita Oblast.

[A. Bairdo reporting, identified by screen caption] The recent precipitation has not brought any hope for a marked improvement in the situation. A smokescreen has again draped itself over huge tracts of forests and many population centers.

Over 50 forest and steppe fires have now been registered in Zabaykalye. Altogether, in almost 2 months almost 200,000 hectares of forest and steppe have been destroyed by the fire. The damage runs into tens of millions of rubles. The struggle with the fire elements is not being discontinued for a minute. Aviation firemen from Tyumen, Magadan, and other oblasts in the country have come to the aid. Civil Defense formations and inhabitants of towns and villages have joined in the fire-extinguishing work. Nevertheless, the fire is retreating more slowly than one would like. One of the reasons for this is that there is a shortage of ground equipment, motor vehicles, powerful tractors, and bulldozers. Incomprehensible placidity is being displayed for instance at the Chita Rayispolkom, where, instead of applying the emergency powers that have been granted, they are engaged in persuading managers of enterprises and farms to assign equipment for use against the fires. On the day this report was shot, having flown around almost the whole of Chita Rayon, we encountered only one tractor, while, on the other, we counted eight forest fires.

In Zabaykalye, taiga fires are not an uncommon occurrence and it would seem that there can and must be a constant readiness to wage the struggle with the fire, but this has not happened. The present raging of the elements should be a good lesson for the future.

[Video shows fire in sparse taiga with helicopter hovering in the air, helmeted firemen spraying the fire from containers on their backs, man talking into walkie-talkie while there is a helicopter in the air]

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MOSCOW CITY OFFICIAL SUPPORTS FUTURE COOPERATIVE EXPERIMENTS

Moscow VECHERNYAYA MOSKVA in Russian 28 Mar 87 p 2

[Interview with Yu. Luzhkov, first deputy chairman of the executive committee of the Moscow City Soviet, by B. Yakovlev; date and place not specified; first paragraph is introduction in original]

[Text] A cooperative cafe has opened on Kropotkinskaya Street, and ever since it opened its doors the lines that form have become characteristic sights that strike the eye long before you arrive. There are still no other cooperative cafes in the capital. Nor are there cooperatives in the consumer services or consumer goods production areas. It was only with some difficulty that a few cooperatives collecting and processing secondary raw materials were established. And why is this? Responding to this question put by VM correspondent B. Yakovlev is Yu. Luzhkov, first deputy chairman of the Moscow city soviet and chairman of the city commission on cooperative and private business.

[Answer] Well, I think VM itself has provided a pretty thorough reply to this question when it published that report by your correspondent not long ago, the one who took that long trip through Sverdlovsk Rayon which had been arranged for him by somebody who wanted to open a cooperative cheburek store there. He went to the executive committee of the rayon soviet, the rayon finance office and the public dining trust and was invariably asked, politely, but firmly, to leave.

[Question] So everything is hinging on attitudes in the rayon-level organizations where things like this run up against stereotyped thinking on the part of officials here who still haven't faced up to the changes under way in our society?

[Answer] Well, it's not just the rayon people. Glavmosbyt [Main Administration for Consumer Services for the City of Moscow] shouldn't be allowed to escape its critics either, for that matter, particularly what with the fact that the three administrations over there, consumer services, municipal services and clothing mending and repair, have done literally nothing in implementation of clear and precise directives from both the party and the government concerning the establishment of cooperatives. And this is the same attitude we see in a number of other main administrations as well. And I'll tell you something else. Mosavtolegtrans [Moscow Light Automotive Transport Administration] has refused point-blank to act on behalf of individuals who have expressed a desire to operate their own personal automobiles as taxis.

[Question] So what's left? Are we going to have to channel the cooperative initiative up from below into the government planning system so it can be established from above as part of the plan by the executive committee of the Moscow city soviet?

[Answer] Now if we were to help cooperatives establish themselves by manipulating the levers of state regulation, wouldn't that fly in the face of the principles of socialist economic management? Most certainly not! We are going to be discussing this problem in great detail, and it's entirely probable that within the very near future all rayon executive committees will be receiving specific plans, to include deadlines and a number of "points."

[Question] But you're still not going to be able to get along without the active and interested assistance of experts, professionals in the fields of consumer services, public dining and local industry, when you have to deal with the questions involved in deciding whether one particular cooperative or another is going to see the light of day. You need some solid knowledge and experience behind you to be able to evaluate properly the proposals submitted by people who want to set up cooperatives and then to be able to provide them with effective assistance.

[Answer] I agree. Experts like that are surely around, and we have to search them out so we can draw on their expertise.

We are in the process of setting up an effective and reliable mechanism for providing assistance to cooperatives. A city-level commission was formed in the capital not long ago, and it is beginning to put down some roots and function more effectively. What we need to see now is more activity on the part of similar commissions at rayon level. We have a major task ahead of us and we need to be moving along with the work in this area a little more energetically.

This is a tremendously important task. Cooperatives are being called upon to help improve the entire, and here I emphasize the word "entire," consumer services system for the people of Moscow, to enlarge the flow of consumer goods onto the shelves of the stores here and to bring new manpower and material resources into the effort.

[Question] Early computations show that labor productivity at the Kropotkinskaya Street cafe (where there are no alcoholic beverages at all) is two to three times higher than at similar cafes run by Glavobshchepit [Main Administration for Public Dining].

[Answer] Well, I'll continue your thinking here by saying that we ought to be seeing more and more public dining cooperatives. In the case of many establishments this would be a realistic way to improve the level of service which is now very low, to solve the problem of the chronic shortage of personnel and eliminate the problem of enterprise unprofitability.

What would be bad about a situation in which, say, the pelmeny store next door to 36 Kropotkinskaya Street, which has been dragging out a perfectly miserable existence, became a cooperative and started giving its now well-known neighbor a little competition? The facilities are there. The people could be found, and these wouldn't necessarily have to be the ones who work there now.

[Question] Wouldn't it be a good thing for the Moscow city executive committee to review the records of all the unprofitable public dining establishments and discuss whether it would be a good idea to organize a cooperative operation at these locations? This, together with the establishment of cooperative public dining facilities at new locations, would both expand and strengthen the network of these establishments throughout the city.

[Answer] That's a good idea, and efforts in this direction are already under way.

Proposals have already been made to organize on an experimental basis cooperatives which would store and, perhaps, sell fruit and vegetables. This is a very tempting experiment, particularly given the fact that losses during storage are enormous; the fruit and vegetable trade is helpless here; the patronage, the support virtually all work collectives in the capital provide the base facilities are never-ending and unproductive and we are seeing high incidences of petty theft and misappropriation.

We have an extreme need for cooperatives specializing, for example, in both the repair and design of apartments, custom-making special furniture and repairing and restoring old furniture and in building garden houses. Our plan is to give priority to supporting and supplying cooperatives that want to specialize in these areas.

I am sure that in the very near future the people of Moscow are going to find themselves pleased by the high-quality professional service available and the high standards of work performed in the cooperative hair-styling salons, for example, and the other types of workshops and repair shops.

[Question] As we know, decrees have been approved authorizing the establishment of cooperatives in the four categories of consumer services, public dining, consumer goods production and gathering and processing secondary raw materials. Are proposals your commission is receiving limited to just these four categories of cooperatives?

[Answer] Most certainly not! Many of them are from people who want to set up cooperatives which will specialize in intellectual work: invention, developing and introducing technical innovations, tutoring and legal services. We have also received proposals from individuals who want to organize physical exercise classes for people of different ages, to include the elderly. There can be no doubting that the doors to cooperative activities will be thrown open even wider and I have the feeling we won't be having to wait in every instance for the next volume of instructions. I would like to point out here, incidentally, that we need to work the bugs out of the system governing relations between cooperatives and the state enterprises for which they turn out products used in the manufacturing process.

[Question] I would like to continue on with the list you started down. Just the other day the editors of the VECHERKA [i.e., VECHERNYAYA MOSKVA] were paid a visit by some people who raise aquarium fish. Some of them are taking these "products" to the bird market. A while back they decided to take their projects in a little different direction. What they wanted to do was to start raising their fish on an individual or cooperative basis and then put on exhibitions and sales and offer consultation at the All-Russian Nature Conservation pavilion on Vorovskiy Street. They were initially allowed to set up there, but then people started having doubts about the whole thing and the way things look now the operation is in the process of disintegrating.

[Answer] I think it would be a good thing for the Nature Conservation Society and other public organizations to promote the development of the cooperative movement. More cooperatives means more income from them for the state. Some part of the resources can also go to public organizations.

But now if we're talking about raising aquarium fish, then I really think we could relieve the state of this burden entirely and turn it over to the cooperatives. I'm sure that we would then see more little fish than you could count and the middlemen who will now occasionally be seen crossing the skies from one end of the country to the other will disappear when they find they have been deprived of their field of activity.

[Question] Prior to the opening of "Kropotkinskaya 36," I wrote a story about the occasion. The next morning I got a telephone call, and an anonymous voice accusing the author of every sin imaginable promised that "OBKhSS [department responsible for fighting speculation and petty theft of public property] will have all these cooperative people transplanted within a year or two."

[Answer] I don't want to get into a conversation about anonymous phone calls, or anonymous letters. With only a very few exceptions these are prompted by malice and envy. Now as far as the law enforcement people and the people's control, finance and other authorities are concerned, these organizations have an enormous role to play in the development of the cooperative movement. We need to steer resolutely away from our prejudices, any inclination to accuse and find fault, so we can give people a chance to settle into a new routine. It is just not worth it to start grasping at small points and then leap to general conclusions.

I will tell you directly and for all to hear: the enterprising, honest, conscientious cooperative operator will always find a supporter and defender in the Moscow city soviet.

8963

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FIXED PRODUCTION CAPITAL IN OIL, GAS EXTRACTION ANALYZED

Baku AZERBAYDZHANSKOYE NEFTYANOYE KHOZYAYSTVO in Russian No 11, Nov 86 pp 54-58

[Article by N. Kh. Atayan and N. N. Nadzhirom of the AzINEFTEKhIM [Azerbaijan Institute of Petroleum and Chemistry] imeni M. Azizbekov: "Analysis of Dynamic and Structural Indicators of the Utilization Efficiency of Fixed Productive Capital in Oil and Gas Extraction"]

[Text] An increase in oil and gas extraction requires new technical and organizational solutions and, in particular, the efficient utilization of fast-growing fixed productive capital (FPC).

Based on data for a conventional NGDU [oil- and gas-producing administration] for 1980-1984, several economic problems in improving the utilization of FPC are reviewed and reserves for raising the return on investment and efficiency of production overall are analyzed.

Over the years under consideration, capital investment for the NGDU overall comprised 142.1 million rubles. For this reason, the placement of FPC into operation considerably exceeded its withdrawal. Fixed capital grew by 39.9 percent in the face of growth in the number of workers of only 1.0 percent. This furthered an increase in the capital-labor ratio of 38.9 percent, which was accompanied basically by growth in the absolute level of FPC, where the increase totaled 101.2 million rubles.

Investing a considerable share of national income in increasing FPC, socialist society naturally has a vested interest in its most rational and efficient utilization and in growth in return on investment from every ruble invested in fixed capital. In the NGDU under consideration, a trend toward continuous decline in return on investment is noted. In the face of growth in FPC of 39.9 percent, the gross production of the NGDU increased by 3.0 percent, as a consequence of which return on investment (or product output per ruble of capital) declined by 26.4 percent. It should be emphasized that the reduction is connected with the specific nature of oil and gas production as reflected in the growth of capital-intensive fixed capital.

The division of the actual gross product output for each year by the level of return on investment for 1980 (32.6 kopecks) makes it possible to determine how much fixed capital the NGDU needed to provide for the production volume

achieved with a constant return on investment. With such an approach, the production volume actually achieved over 1981-1984 would have required less fixed capital. In this manner, the analysis demonstrates that growth in return on investment generates a great national-economic impact and raises the level of profitability, increasing the body of profit to a certain extent and decreasing the relative cost of the capital.

Under the specific conditions of oil and gas production, requiring capital-intensive fixed assets, the question arises of prices for oil and gas that reflect socially necessary expenditures. The new prices, which were introduced starting on 1 Jan 82, should have resolved this issue. Return on investment for 1980, calculated in old and new prices for gross product output, comprised 21.6 and 32.6 kopecks/ruble respectively, i.e. defined a growth of 11 kopecks/ruble or 59.9 percent. The increase in the mass of return on investment, however, still does not signify changes in its trend, which in the period under consideration was declining.

We will consider the principals ways of raising return on investment and the extent of utilization of FPC (in percentages of 1980) in the NGDU according to the data cited in the table.

-----Indicators-----	-----Years-----			
	1981	1982	1983	1984
Cost of FPC	108.8	116.4	129.7	139.9
Return on investment:				
balance-sheet value of FPC	96.3	89.9	82.2	73.6
residual value of FPC	99.1	90.4	80.9	79.9
Return on new FPC	100.0	82.6	55.6	39.7
Capital-labor ratio	104.1	112.4	128.9	138.9
Labor productivity	100.0	101.1	105.8	102.2
Return on capital	93.3	83.8	97.2	87.2
FPC start-up per ruble of capital investment	92.8	104.8	142.8	70.2
Amortized return	99.1	89.2	83.7	75.9
Amortization of FPC	105.3	117.2	127.2	135.8
including for renovation	107.1	116.9	125.4	134.9
for capital repairs	100.4	118.0	131.7	137.9
Expenditures for FPC capital repairs	97.3	98.9	90.7	113.4
Coefficient of utilization	99.6	99.9	100.1	100.2
Average yield per well-month, used	105.6	104.1	101.6	99.0

Return on investment is directly dependent on the productivity of labor and inversely related to the capital-labor ratio. Consequently, the task is reduced to providing for the systematic and greatest possible increase in the growth of labor productivity compared to the growth rate of the capital-labor ratio. In the period being analyzed, the capital-labor ratio had reached 38.9 by 1984, while the annual output per worker had increased by only 2.2 percent--from 70,800 to 72,380 rubles. This caused a decline in return on

investment of 26.4 percent. A rapid growth in labor productivity is linked with raising the capital-labor ratio, namely through the acquisition and assimilation of new high-productivity equipment and the construction of new wells, which should increase labor productivity to a greater extent than the capital-labor ratio. At the same time, a regard for the factors of natural conditions and the methods of oil extraction, especially at the later stages of field development, are of no small significance here, and they determine the volume of production and the productivity of labor. The proposals in economic literature to determine the indicator of FPC efficiency according to the residual value of the assets, taking into account depreciation of fixed assets under the specific conditions of production, lack serious foundation. Calculations demonstrate that the indicators of FPC efficiency calculated according to the residual value of the capital have the same trends as the indicators calculated in the traditional manner according to the balance-sheet values of the FPC. The difference consists of the fact that the rate of change of the indicators calculated according to residual value are several percentage points higher than the rate of change of these indicators according to the balance-sheet values.

Many economists have come to consider a prolonged decline in return on investment as some sort of general law characteristic of the contemporary stage of scientific and technical progress and the development of the economics of oil and gas production. It seems to us that this position is far from always supported by a deep analysis of the problem under consideration. It is apparent that the causes for the unfavorable dynamics of return on investment are linked with organizational and technical factors. In order to uncover more specific causes, attention should be paid to the fact that the situation is particularly unfavorable in the return on newly introduced productive capital and capacity. Calculations have determined that the return on investment of new capital is several times lower than that for existing capital. This is explained by a whole set of reasons. Chief among them are the unjustifiably prolonged time periods for the construction of production facilities; the turnover of facilities with much incomplete work; price increases for process equipment that do not correspond to changes in its productivity and other technical features; and, inordinately long time periods for the assimilation of the new productive capacity.

The tendency toward change in the technological structure of the FPC of oil and gas production overall is persistent, which indicates the priority of the utilization of wells and other structures, and the possibility of extending the conclusions of this analysis to managing the economic efficiency of all FPC. The efficient utilization of FPC depends on the physical state of the assets. The FPC of the NGDU under consideration was already depreciated for more than half of its value. Moreover the persistent, albeit insignificant, decline in depreciation in 1980-1983 from 51.6 to 50.9 percent is replaced by its renewal in 1984 to 55.5 percent. Under conditions of growth in physical depreciation, the observance of the level of production efficiency achieved is possible both through the intensive utilization of existing FPC and its renewal. Considerable fluctuations were discovered in the renewal, withdrawal and increase of FPC. By the end of the period under analysis, moreover, a trend toward a decline of this indicator was observed. It is possible to draw the conclusion that the NGDU under consideration lacks systematic FPC

management operations. Capital investment has a determining role in the renewal and increase of FPC. In this NGDU, from 25.1 to 31.4 million rubles of capital investment are assimilated each year with a considerable average annual growth rate. Analysis of the dynamics of the efficiency indicators of capital investment shows a steady decline in return on investment--from 3.28 rubles in 1980 to 2.86 rubles in 1984. An overall reduction in the proportionate value of the FPC placed in service per ruble of capital investment was also determined. The decline in the rate of return on investment in 1981-1982 gives way to its increase over the rate of return on investment in subsequent years of the period under consideration. The steady increase in expenditures for capital-intensive construction and the decline of expenditures for less capital-intensive reconstruction is a factor that has an objective influence on increasing capital-intensiveness and decreasing the efficiency of capital investment. One of the specific features of oil and gas production is a high proportion of expenditures for the simple reproduction of product output in the overall volume of capital investment, which is associated with a fall in oil and gas extraction at fields that have entered the later stages of production. Analysis shows that more than half of the capital investment aimed at the start-up of new capacity is used to compensate for the fall in oil and gas extraction in old regions. This feature of the production structure, caused by natural conditions, has an objective influence on the substantial increase in cost of absolute production increases. It is widely known that fixed capital recovers its cost through amortized deductions that are included in the cost of product output. An important function of amortization is the objective rational and proportional recovery of the value of fixed capital. In the NGDU under consideration, a noticeable increase in amortized deductions from 24.1 million rubles in 1980 to 32.6 million rubles in 1984 took shape. In other words, the amortization deductions had increased by 35.8 percent by the end of the period being analyzed. The amortized return as calculated as the ratio of gross product output volume to the sum of the amortization deductions, however, had a persistent trend toward decline in the period under review.

In comparing the rate of change, the excess of amortized return over return on investment is apparent. This is explained by the fact that in the period under consideration, amortization was figured according to the new standards for the replacement cost of fixed capital after re-evaluation. The replacement cost under the re-evaluated totals exceeded the initial one by an average of 11 percent. Growth in the overall amortized expenditures occurred as a consequence of an increase in deductions for renovation and capital repair. An increase in deductions for renovation is proposed in literature as a condition that provides for the timely renewal of fixed capital and the incorporation of the achievements of science and technology. It seems to us, however, that the increase in amortization deductions for renovation in and of itself does not accelerate the renewal of equipment, but only creates the financial preconditions for it. The main thing is the coordination of the renovation fund with its material support in size and structure. A comparison of the growth in amortization for renovation and the growth rates of FPC shows that fixed capital is expanding more rapidly overall than the renovation fund. This is typical for such types of FPC as structures (including wells), machinery and equipment. At the same time, the rate of change in the renovation fund for transmission apparatus and production buildings

considerably outstrips the growth rate of their values. Thus, reserves for improving the proportions of the renovation fund and the financial resources are apparent, which would permit an acceleration of the replacement of obsolete equipment. A steady decline in the share of the renovation fund in overall amortization with a rapid rate of FPC increase, however, limits the possibilities for realization of the conclusion obtained. An important economic purpose of amortization is to satisfy the need to renew FPC. Currently, however, the funds of the amortization fund are being dissipated, and the principal portion of them are generalized and used as a source of financing for capital investment. And this restrains the timely renewal of the assets. One of the consequences of the aging of FPC is an increase in expenditures for capital repair. In the NGDU under consideration in the years being analyzed, considerable growth in expenditures for capital repair both overall and for different types of FPC, including structures, machinery and equipment, was observed. The increase in these expenditures was accompanied by rapid growth in amortization deductions for the capital repair of FPC. Over 1980-1984 overall, total expenditures for capital repair exceeded the capabilities of the amortization fund for this purpose by 12.0 million rubles. The principal share herein was expenditures for the capital repair of structures, for which the excess was 9.3 million rubles. The increase in expenditures for capital repair progressed to a considerable extent according to the dynamics, which was largely caused by the necessity of maintaining existing production apparatus in working condition. In comparing the spending for capital repair with the value of the FPC and considering the dynamics of the proportionate expenditures, the significance of the spending for repair needs becomes obvious. Proportionate expenditures for the capital repair of FPC had grown 64.3 percent by the end of the period being analyzed, basically through machinery and equipment. For the remaining types of FPC, a trend toward a reduction in proportionate expenditures for capital repair is noted. Intensive and extensive factors in the utilization of the real assets of fixed capital, especially wells, should play a paramount role in raising return on investment. It follows from an analysis of the operational coefficient that existing wells from the general balance sheet were idle from 3.0 to 3.9 percent of calendar time. This is basically repair time. The smooth and precise operation of the capital and underground well-repair shop has great significance herein. The well inventory ages from year to year, requiring greater repair-intensiveness, i.e. the quantity of well repairs per well varies within the range of 2.2-2.8 over the years of this period. The complete utilization of the balance of work time of the well capital and underground repair crews has great significance. Over the years of the period under consideration, the share of non-productive time comprised 33.6 percent of the total. It is obvious that not all of the problems depend on a single shop. Very many (about 30 percent) depend on the workers in related fields of other shops and organizations. This means that their responsibility for the timely rendering of services must be raised, and this can be achieved through sanctions and fines, bonus terms and socialist competition, which do not take into account the whole set of mutually connected factors. A decrease in the extraction capabilities of the NGDU as a consequence of the depletion of key beds was reflected in a decline in average yields over the period being analyzed. Even today, the start-up of new wells at the fields under consideration has a short-term impact with subsequent total encroachment. It is natural that rapid growth of labor productivity can be ensured only by

productive wells. The extraction capabilities of these wells depends to a considerable extent on the execution of a series of geological and technical measures. Considerable variations are noted here in the increase in oil production for one measure. Thus, the dynamics of the indicator for the period being analyzed totaled 1,057, 703, 836, 661 and 691 tons by years respectively. The practice of a thoughtful engineering approach to the selection of wells and the employment of a set of measures that is specific to each well should play an important role in determining the increase in oil production from geological and technical measures. It is particularly important to make ever wider use of the latest achievements of domestic and foreign science and practices.

Thus, questions of the return on investment on FPC should be resolved both through surmounting shortcomings and the tireless raising of the quality of operations, and through a regard for the specific features of oil and gas production under complex conditions. The realization of the tasks posed will ensure an increase in the efficiency of production in oil and gas extraction.

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RESTRUCTURING OF HIGHER AGRICULTURAL SCHOOLS DESCRIBED

Moscow SELSKAYA ZHIZN in Russian 27 Mar 87 p 5

[Article by Yu. Vsevolozhskiy, chief of the USSR State Agroindustrial Committee's Higher and Secondary Specialized Education Administration: "Who Should Be a Student? On the Ways of Restructuring the Higher Agricultural Schools"]

[Text] The "Basic Directions in the Restructuring of Higher and Secondary Specialized Education in the Country", which were approved by the CPSU Central Committee after a broad discussion in the press and in the collectives of higher educational institutions, scientific establishments, enterprises, and organizations, were recently published. With respect to agricultural education, its improvement is inseparably linked with the implementation of the USSR Food Program. Future specialists for mastering modern intensive crop-growing and animal-husbandry processes must be trained without fail and with a consideration for the industrialization of agricultural work, the agroindustrial integration of production, and the transfer of kolkhozes and sovkhoses to genuine and complete cost accounting.

During the discussion of the CPSU Central Committee draft, preparations were begun to reform the higher agricultural school. The experiences of progressive VUZ were summed up, negative phenomena were analyzed, and training plans and programs were reviewed. What has been changed during the past months, and what remains to be done in the near future?

I will talk about the new approaches in professional orientation work. A number of serious problems are locked up in it. The next acceptance into agricultural VUZ is at hand. Then it will be possible to see what kind of student is coming to us to be taught and to check in practice how effective the steps, which have been taken, have been.

VUZ are now performing all the work to form the student body in close contact with the oblast agroindustrial committees and the RAPO [Rayon Agroindustrial Production Association.] For example, from this year on, all grant-aided students from the farms will be sent for training only in accordance with contracts between the agricultural VUZ and the agroindustrial committees and associations. They are regulating and monitoring this process and are attaching a planned nature to it. Of course, the farms themselves determine

the need for specialists in the near future. However, not all of them have equal capabilities for sending as many grant-aided students as they need specialists to VUZ. Who, if not RAPO, sees the personnel needs of the entire rayon? A specific specialist for a specific farm or RAPO -- here is the schema that we will adhere to when selecting grant-aided students.

Of course, in order to solve the problem of the rural youth's professional orientation, organizational measures alone are insufficient. It is important that they be supplemented on the spot with non-standard creative work. Such an approach is typical, for example, of the Azovo-Chernomorskiy Institute for Mechanizing Agriculture. Several years ago, they began to think here about why there were few students from the oblast's remote rayons. The VUZ employees travelled about the villages, held detailed discussions in schools and came to the conclusion that the level of knowledge of the local graduating students was not very high. It was difficult for them, of course, to compete with well-prepared young men and women. At the time, the VUZ leadership adopted a very interesting and unusual solution: An engineer technical boarding school was established at the institute for the senior class students who had decided to link their life with agriculture. They selected "in depth" 50 young men and girls; the professors and instructors began to teach them according to the usual program but with a bias toward difficulty. In two years, each pupil had acquired five work trades: machine operator, driver, metalworker, lathe operator, and electric welder, along with a thorough knowledge. Last spring, they passed their final examinations and almost all of them were included -- based on the permission of the USSR Ministry of Higher and Secondary Specialized Education -- in the institute's first course without examinations. There cannot be any doubt that these children, who have consciously selected their path in life, will become good specialists.

The experiences of the Azovo-Chernomorskiy Institute for Mechanizing Agriculture, which has been thoroughly studied, lies at the basis of the step-by-step system for training cadres for the agroindustrial complex. Before revealing the essence of the proposed innovation, I will point out that the preparations for its experimental testing are being completed at the present time. The first stage, which is the basis for the entire system, is the rural (rayon) general educational school. Beginning with the fifth-sixth class, we will train children in it for agricultural work specialties. At this age, the school children's interest in different professions will grow rapidly, and letting time slip by sometimes means missing a future rural specialist.

It is necessary to talk about the second stage in more detail. The graduating students of rural schools can -- as they wish -- continue their education in a technical school or in a higher educational institution. The main thing is the fact that their education in a technical school and for the first 2.5 years in a VUZ will continue in accordance with a unified curriculum. Young men and women, who have completed a technical school with good results, can enter an institute immediately in the third year. Very successful VUZ students will continue their climb to the heights of knowledge along with them. Those, who are doing poorly after 2.5 years of training, will receive secondary specialized education diplomas and will be sent, as other technical school graduates, to production -- as brigade leaders and junior specialists.

In the third stage, the students will undergo prolonged practice -- on-the-job training -- and then, certification for production; however, they will complete their training by defending actual graduation projects based on requests from the farms.

It seems to us that this system for training specialists will improve the strength of training and will permit the revealing of capable young people from whom knowledgeable and skillful specialist innovators and technical progress creators will be obtained. And yes, the return from the resources spent on training will rise sharply.

It is no secret that the cost of preparing specialists in VUZ has almost doubled during recent years. That is why, in our opinion, it is now necessary to compare the expenditures for training future specialists with the contribution that they are making to the expansion of agricultural production. First of all, it is necessary to determine realistically and objectively the requirement for this or that type of specialist. I will say frankly that figures, which were taken from thin air, were often previously placed in the orders of some republics.

The output of specialties, whose training is not linked with large capital investments in the construction of specialized buildings and structures and the acquisition of a complicated and expensive education, has grown especially rapidly. According to our calculations, if radical steps are not taken, the requirement for agronomists will, for example, be exceeded by almost 50 percent by 1990 in Uzbekistan; and for land tenure system specialists, silkworm breeders and foresters -- twofold or more. There is already a critical shortage of veterinary doctors and engineers now. A similar situation exists in several other republics.

Based on this, we are planning to decrease this year the acceptance of people in the agronomy, hydroreclamation, economic, and livestock expert specialties by 2,075 people and increase it in the critically short specialties, especially in the VUZ of the nonchernozem zone of the RSFSR, Siberia and the Far East.

At the same time, we are proposing to close a number of agricultural VUZ and branches with a poor material base that are experiencing a shortage of professors and highly qualified instructors. This question, which was raised in the article entitled "On a Bare Spot" (SELSKAYA ZHIZN dated 20 February), has really become pressing. We consider the criticism addressed here to be justified.

The administration is developing a draft "Type Contract for Preparing Specialists on an Economic Contract Basis in Agricultural VUZ." We are talking about a partial reimbursement of expenditures for training personnel at the expense of the national economic branches. This has been provided for by the "Basic Directions...." During the present year, we will begin the experiment in the Dzhambul Hydroreclamation and Construction and the Novocherkassk Engineer Reclamation institutes which are basically preparing personnel for the USSR Ministry of Land Reclamation and Water Resources. We think that the directors of the enterprises and organizations in this

ministry will now approach the selection of candidates as students and the use of young specialists more responsibly. Requirements on agricultural VUZ for quality in the training of their grant-aided students are being increased. Both parties will be the winner -- you see, it is a common task.

The success of the restructuring in the higher agricultural school will depend in the final analysis on coordinated creative and innovative work by the professor and instructor collective. We are providing them definite help. Drafts of experimental curricula are being developed for the main agricultural specialties. Incidentally, we have distributed them to the directors of progressive kolkhozes and sovkhoses, VUZ rectors, scientific and research institute directors, and agroindustrial committees; we have received positive responses from almost everyone. Complex programs for practical training are being developed and introduced for the first time. The economic training of the students is being improved, and training programs and textbooks are being updated.... In a word, quite a bit is being done. However, good shoots will appear only where the seed falls on rich soil. I primarily have in mind the moral and psychological climate in the VUZ collective. To tell the truth, internal conflicts do not often shake an agricultural VUZ and the rust of cliquishness and nepotism does not eat away at them. Here, a great deal -- if not everything-- depends on the rector and his objectivity, honesty, decency and ability to unite people and involve them in work. In a word, the rector should be a worthy individual who enjoys the respect of the entire collective. That is why the collective should itself select such a leader. SELSKAYA ZHIZN has already talked about the elections of a rector for the Latvian Agricultural Academy. Immediately after this event, the administration's specialists developed a draft provisional statute on selecting leading VUZ cadre and distributed it to them. The collectives of a whole number of agricultural VUZ are now preparing to select rectors and pro-rectors. The candidates, who come in second and third in the voting results, will be listed as a reserve. The expansion of democracy will help to normalize the situation in agricultural VUZ, strengthen discipline and create a benevolent and business-like atmosphere.

The restructuring of our agricultural school is a complicated and multifaceted process. It will proceed more successfully if each agricultural VUZ professor and instructor will participate very actively and in an interested manner in it.

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